systematic excavation of the great series of royal tombs a vast store of 000
archaeological data will be forthcoming. This splendid series, the sequence [172]
of which is known in part, constitutes no doubt the most important
archaeological field in Polynesia.

For the location of places mentioned in this paper refer to Tongan 113
Place Names (25).[A]

POPULATION

CENSUS DATA

The census for the year 1921 taken by the Tongan police in the month 161
of April, lists 23,759 Tongans, 571 Caucasians, 235 half-castes, 235 individuals 162
from other Pacific islands, and 135 miscellaneous non-Caucasian foreigners.

Intermarriage of Caucasians and full-blooded Tongans is less frequent 563
to-day than formerly, although at no time was such intermarriage common.
To all appearances the Tongan population bids fair to maintain itself in [144]
strength of numbers and purity of blood indefinitely. This situation seems [671]
insured by the fact that ownership of land by foreigners is effectually pro- [423]
hibited by law.

It is the opinion of the late Reverend J. B. Watkin, formerly President of the Free Church of Tonga, and a man who could speak with authority because of his long residence in Tonga, that the population of the three main island groups of Tonga—Tongatabu, Haapai, and Vavau—has never exceeded 25,000; an opinion with which I have reason to concur. 161

The estimate of the Wesleyan missionaries in 1840, cited by Commodore Wilkes (63, vol. 3, p. 29) allows only 18,500 for the population of the whole archipelago, including the outlying Niuatoputapu and Niuafoou islands. It is possible that this is an underestimate, though it must be remembered that the country was still suffering from the internecine wars which began about the end of the eighteenth century. In Table 1, Wilkes' figures for 1840 are given with those for other years up to 1921. For 1922 no detailed figures have been obtained, but according to Stronge (52, pp. 6-7) the excess of births over deaths for that year was 359, which would make the total Tongan population more than 24,000.

ANCIENT DISTRIBUTION OF POPULATION

Tradition speaks of a time when it was possible to communicate from 161
one end of Tongatabu to the other by calling from one farm to another, a 162
state of affairs described as *fanongonongo tokoto* (making proclamation 203
when reclining). Some writers have inferred from this tradition that the 173
population must have been much denser than that of to-day. The area of 000

[A] /See 4: Gifford for this source -- Analyst/

The area of
Tongatabu, however, probably does not exceed 150 square miles, which on 161
the basis of full-blooded Tongan population, in 1921, gives the average of 65 162
individuals to the square mile, a number probably sufficient for communica- [131]
tion in the traditional way, if the bulk of the population fringed the ancient [491]
highway which ran from end to end of the island. It should be borne in [361]
mind that the ancient population lived largely on farms rather than in villages. [764]
Ancient burials are to-day found in the bush where farms once flourished.

Cook (19, vol. 1, p. 297) mentions an assemblage at an entertainment 175
on Tongatabu Island, concerning which "some of us computed, that, at this 161
time, there were not less than ten or twelve thousand people, in our neigh- 162
borhood; that is, within the compass of a quarter of a mile; drawn together, for the most part, by mere curiosity." Providing the total is not overestimated, this statement would seem at first glance to indicate a larger population for Tongatabu Island than that of the present day. But many people from neighboring islands of Tongatabu and from Haapai and Vavau were doubtless present. In reference to the population of the islands near Tongatabu in 1797 the following quotation from Wilson (65, p. 95) is pertinent: "Passing to the northward of Eoo-äije, we steered W.S.W. to the entrance, then W. by S. and W. up the harbour, followed by the above canoe and several others, which put off from the eastern part of the main island and the islets that lie scattered upon the reef."

The statement of Cook (19, vol. 1, p. 246) that "at least three thousand people" assembled at the entertainments on Lifuka Island indicates a population in 1777 no greater than in 1909 when Lifuka and the neighboring islands Foa and Haano had a population of 3,565. With the rest of Haapai to draw upon as well, a crowd of three thousand people might be assembled readily enough. Cook's description of the island of Mango suggests that the population in 1777 did not much exceed the population of 42 individuals in 1906 and it is of interest to note that he found Uoleva Island, just south of Lifuka, as destitute of inhabitants as it is to-day.

The grouping of people in villages and the consequent desertion of farms 175
as residences has taken place probably since 1773, when Cook (18, vol. 1, 162
p. 213) described the country as follows: 361

> The produce and cultivation of this isle [Eua] is the same as at Amsterdam [311]
> [Tongatabu]; with this difference, that a part only of the former is cultivated, whereas
> the whole of the latter is. The lanes or roads necessary for travelling, are laid out [491]
> in so judicious a manner, as to open a free and easy communication from one part of the island to the other. Here are no towns or villages; most of the houses are built in the plantations, with no other order than what conveniency requires; they
> are neatly constructed, but do not exceed those in the other isles. The materials of 342
> which they are built, are the same; and some little variation in the disposition of the 175
> framing is all the difference in their construction. The floor is a little raised, and
> covered with thick strong mats; the same sort of matting serves to inclose them on [352]

[TEXT CONTINUED ON PAGE 7]

1: Gifford E-4,5 (1920-1921) 1929 OU9 Tonga OU9

TABLE 1. POPULATION OF TONGA 1840-1921 BY PRINCIPAL ISLANDS AND ISLAND GROUPS

	1840	1900*	1902	1905	1906	1909	1911	1915	1917	1918	1919	1920	1921
Eua	200	423	453	427	402	428	363	426	412	398	386	384	387
Tongatabu	8,000	7,943	8,098	8,350	8,473	8,580	8,550	8,876	10,155	9,688	9,264	9,228	9,740
Haapai	4,000	5,243	5,336	5,466	5,460	5,649	5,803	5,823	5,980	6,160	5,894	6,108	5,976
Vavau	4,000	4,614	4,869	4,816	4,887	5,075	5,161	5,548	5,779	5,643	5,345	5,546	5,787
Niuatoputapu	1,000	716	755	771	767	728	705	761	810	832	732	734	761
Niuafoou	1,300	1,080	1,183	1,273	1,243	1,235	1,130	1,156	1,109	1,121	1,068	1,128	1,108
Total	18,500	20,019	20,694	21,103	21,232	21,695	21,712	22,590	24,245	23,842	22,689	23,128	23,759

* The statistics for 1900 and after include full-blooded Tongans only.

Ardeo and Mooa by Wilson). The map published by one of these missionaries 175
(60) is innocent of villages. As to the cultivation of the country 361
they say: "At Tongataboo the country is flat and enclosed, and, though little [797]
cultivated, very productive" (65, p. 385). [311]

By Mariner's time the complete breakdown of the central authority and [712]
the internecine wars had forced people to take refuge in fortresses (*kolo*) [721]
from time to time. This seems to be the origin of the modern Tongan villages,
all of which to-day are designated by the word *kolo*, though none are
fortified. The ruins of old fortifications are numerous. [172]

Although the necessity of living together for protection disappeared completely 361
with the destruction of the fortress of Pea in 1852, villages nevertheless
persist in Tonga and appear to have come to stay. Christianity and the [795]
copra trade are factors that contribute to the maintenance of village life. [439]

MODERN VILLAGE POPULATION

The large modern villages, such as Nukualofa-Maufanga on Tongatabu, [162]
Neiafu on Vavau, and Pangai-Hihifo on Lifuka Island, represent the acme
of development in village growth and consequently the greatest departure
from the rural distribution of population observed by Captain Cook. These 361
large villages are composed of an assemblage of unrelated family groups. 621
Thus, Hihifo, is said by one informant to comprise three groups of kindred
headed by the chiefs and matapule Tuita, Pouangi, and Tea. In the smaller [602]
villages, however, it seems likely that the inhabitants are bound to one another [178]
by blood ties and that these little communities do not depart far from
the grouping of people in ancient times. The tiny village of Siesia, Nukunukumotu
Island, is an example. The relationship of the 16 individuals of this
hamlet in 1920 are given below.

House 1

1. Kula, father of 5. A *toutai* (navigator or fisherman) and former mayor of 361
   Siesia. His wife was Finau of Folaha, Tongatabu, now dead. 621
2. Fatai, son's son of 1, named after brother of 1. 592
3. Maria, wife of 2. A woman of Maufanga, Tongatabu; upon marriage came at
   once to Siesia to live. 602
4. Solomon Tanaki, son's son of 1 and brother of 2, unmarried, named after brother of 1, by midwife. Born at Siesia.

House 2

5. Taani, son of 1, and father of 2, 4, 7, 8, 9, mayor of Siesia.
6. Mary Anna, wife of 5 and mother of 2, 4, 7, 8, 9.
7. Mili, daughter of 5 and 6, about 13 years old. Twin brother dead.
8. Latu, son of 5 and 6, about 16 years old. He and 13 call each other by brother [601]
   terms. They are of course only cousins.
9. Mary, daughter of 5 and 6, about 9 years old.

in a genealogical sense. The Ano people formerly had the Tui Haa Takalaua 361
as overlord, the Faletapu people the Tui Kanokupolu. The Ano people were 621
under the direct control of a matapule named Malaloi, who served the Tui [602]
Haa Takalaua and transmitted his orders. Failoto was under a chief named
Lotaki. The Faletapu people had still earlier lived at the neighboring site
of Pangai Foou, but moved to Faletapu just after becoming Christians. The [582]
Lotofoa informants said that marriage within or without each of the four
"families" was permitted, degree of relationship being alone the determining
factor.

The 85 adult male land holders of Lotofoa were distributed as: Men 162
from Felelei, 14; men from Failoto, 9; men from Faletapu, 12; men from 621
Ano, 13; men from other islands, 33 (one of these is from Faleloa, Foa
Island); men of uncertain residence, 4.

For the island of Fotuhaa, Haapai, I have data which will perhaps aid in 162
forming some conception of the extent to which wives are obtained within 621
the village. Moungatonga, a man of chiefly rank, said that every native of 582
the island belongs to one of two "families," actually two districts: Hahake (East), Moungatonga's "family," and Hihifo (West), matapule Tuuheava's family. Of the 45 men holding tracts of land on Fotuhaa, 9 are unmarried. Of the remaining 36, 15 are Hihifo residents, 21 Hahake residents. Of the men from Hihifo 4 married Hihifo women, 4 married Hahake women, and 7 married women from other islands. Of the Hahake men 3 married Hahake women, 3 married Hihifo women, and 15 married women from other islands.

These figures reveal no tendency of the inhabitants of Hahake and Hihifo [616]
to form two intermarrying moieties; nor the slightest indication that the Hahake and Hihifo inhabitants constitute two endogamous moieties. The figures do reveal a slightly greater preference for wives from islands other than the home island of Fotuhaa; of 36 wives, 14 were selected in Fotuhaa. The small size of the population no doubt forces marriages with other islanders in order not to marry within prohibited degrees of relationship.

SEX AND AGE IN THE TONGAN POPULATION

In so far as statistics are available, the proportion of sexes in the Tongan 162
population of the year 1921 is shown in Table 2. Whether or not the figures reflect the relative proportions of the sexes in ancient times it is impossible to say. It may be noted that except in Eua, males outnumber females. The table shows also the age relations of the Tongan population.

The accounts of early voyagers give no information as to proportions of the sexes or the age groups in the Tongan population. The equivalent of the "fighting men" of antiquity may be considered those males included under "People in Prime" and "Young People" in the 1921 population. Table 3 is arranged on this basis.

TABLE 2. TONGAN POPULATION FOR 1921 BY SEX AND AGE

	AGED PEOPLE		PEOPLE IN PRIME		YOUNG PEOPLE		CHILDREN		TOTAL POPULATION	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Eua	4	10	23	20	99	93	67	71	193	194
Tongatabu	337	469	737	784	2,005	1,626	1,998	1,784	5,077	4,663
Haapai	133	195	628	630	1,028	951	1,284	1,127	3,073	2,903
Vavau	131	168	427	518	1,173	1,075	1,210	1,065	2,941	2,846
Niuatoputapu	20	38	42	39	154	132	182	154	398	363
Niuafoou	97	91	121	124	145	116	213	201	576	582
Total	722	971	1,978	2,115	4,604	3,993	4,954	4,422	12,258	11,501

161
162

1: Gifford E-4,5 (1920-1921) 1929 OU9 Tonga OU9

1: Gifford E-4,5 (1920-1921) 1929 OU9 Tonga OU9

TABLE 3. PROPORTION OF FIGHTING MEN TO POPULATION 161 162

	NUMBER	PERCENTAGE
Eua	122	32
Tongatabu	2742	28
Haapai	1656	28
Vavau	1600	28
Niuatoputapu	196	26
Niuafoou	266	24
All Tonga	6582	28

The only comparable material which I possess for other years is for Niuafoou Island, where in 1902 there were 334 able-bodied fighting males, who formed 28 per cent of the population.

IMMIGRATION

The Tongans have no tradition of a migration into their islands, of a 173
Havaiki homeland, or of an overrunning of their country by foreigners except 167
the coming of Ahoeitu, the first Tui Tonga of the dynasty which ended in
1865. Tradition refers to the country as already peopled, but pictures
Ahoeitu's entry as apparently peaceful. Though there is no mention of 167
armed invasion, there are many apparently authentic instances of peaceful
penetration by foreigners. From Fiji there were two large influxes of people, from Samoa one, and from Rotuma and Tokelau minor accretions.
This paper and other Tongan papers by me contain many references to
foreign accretions to the Tongan population. Most of the first holders [624]
of the present matapule titles were foreigners. [444] [565]

From Niue, Uvea, and Futuna there seems to be no record of immigrants in heathen times, though Christian times have seen a considerable influx of Uveans (62, p. 245). Perhaps hostilities with Niue, which are mentioned in Niuean traditions, were responsible for the absence of immigrants therefrom (55, pp. 19-21). Perhaps hostilities with Futuna may likewise have interfered with immigration from that island, though we hear of the Tui Tonga (either Takalaua or Kauulufonua I) sending a governor to Futuna as well as to Rotuma and Samoa.

going to Haapai. Later, returning to his old master, he was driven away. 565
Anciently he might have been executed. 361
686

The matapule usually dwelt close to the chiefs to whom they were at-
tached, as did also certain *tua* who performed menial tasks, such as cooking. 565 361
Many establishments of chiefs constituted fair-sized settlements. 621

The rank of male tenants (heads of families) of *api* in several localities, 565
as recorded in 1920, is shown in Table 8. It will be noted that chiefs are 361
relatively most numerous in Lifuka and Tongatabu, the seats of govern- 554
ment. Though a different classification might be made by other informants, 592
the figures probably give a fair idea of the relative numbers of the three 162
classes among tenants, and of the local variation which prevails.

TABLE 8. RANK OF TENANTS AT VARIOUS LOCALITIES

	CHIEFS	MATAPULES	COMMONERS
Pangai, Lifuka	14	49	133
Hihifo, Lifuka	16	40	104
Holopeka, Lifuka	1	9	8
Koulo, Lifuka	2	18	30
Lifuka as a whole	33	116	275
Fangaleounga, Foa	0	1	3
Fotua, Foa	1	2	22
Lotofoa, Foa	6	23	54
Faleloa, Foa	1	27	31
Foa as a whole	8	53	110
Fotuhaa Island	2	1	43
Uiha, Uiha (*tofia* of Malupo)	3	23	109
Kolovai, Tongatabu (*tofia* of Ata)	18	10	74
Atata Island (*tofia* of Ata)	1	1	8

In the former Tongan population there was evidently a still lower ele- 567
ment than the commoners, the *popula* (slave, prisoner). Anciently these [727]
people seem to have been largely war prisoners; one informant said they
were conquered chiefs and matapule who were enslaved. Through the ef- [797]
forts of the missionaries, this class distinction has been completely elimin- [178]
ated, but certainly some commoners to-day are the descendants of chiefs [565]
whose political stars fell. A term apparently synonymous in part with *popula*
is *hopoate*. It is sometimes used to-day with the meaning of stranger; for
example, shipwrecked people from Futuna are *hopoate*, but are treated as
guests, not as slaves.

I doubt if matapule can appropriately be called a rank at all. It is 565
an office to which men are appointed from among the higher non-chiefly [554]
families and the rank of a matapule would vary according to the rank of
the chief by whom he was appointed and whom he served. Likewise, chief-
tainship is an office. A chief's relatives are not chiefs in the strict sense of
the word, but naturally have a higher social standing than the relatives of

1: Gifford E-4,5 (1920-1921) 1929 OU9 Tonga OU9

Veamatahau, Vea, from Matahau. T,H,V
Veaniua, Vea from Niuatoputapu. T
Veatama, the child who is a chief.
Veatokelau, the chief from the north, Vea of the north.
Veatoki, a strong chief.
Veatonga, Vea from the south.
Veatoutai, Vea the chief of fishermen. T
Veatupu, Vea the strong; a chief that is distinguished. T, H, V
Veehala, the side of the road; not in step; to step wrong (as in a dance). T,V
Veekalifisi, the feet of the wooden pillow from Fiji.
Veetokelau, the feet that come from the north; foot of the north.
Veetutu, the feet that beat time in the dance. H
Vehikite, something that appears in sight. T,V,NT
Veikune, a good chief. T,H,V
Vela, hot; to burn; to scald. NT
Velevelu, the good that comes quickly.
Velia, itchy.
Velovelo, throw the dart (it was the cry of the warriors when fighting). T
Vesi, verse. T
Vete, to seize the spoil of a conquered foe; to disburden; the name of a fish. T 551
Vetule, to jog along, as one old or weak. H
Veua, two things.
Vi, the name of a tree and its fruit. T, H, V, NT, NF
Viau, something of mine. H,NF
Vika, Victoria. H
Vikaheilala, Victoria of the *heilala* tree.
Vikatoa, a whole *vi* fruit; all the *vi* fruit. V
Vikena, the *vi* fruit that is reddish when ripe. T,H
Vilai, a bean. T
Vili, a gimlet; to drill; to go quickly. T
Viliami, William. T
Vilingia, to be blown away; to be blown. H
Vivi, the name of a grass; dead; stinking. V, NT
Vivili, to feel; to be conscious of. NT
Vola, a fast dye. H
Vuki, something at a distance. H,V
Vulase (a Fijian word).
Vuna, a real chief. T
Vunaila, a chief with a scar.
Vungakoto, the step upon which the mast of the vessel stands. V

THE OUTLYING ISLANDS

Although little was added to the previous knowledge concerning the 128
expansion of the Tongans beyond the limits of the modern kingdom of
Tonga, some light was obtained as to the peopling of some of the remoter
islands of the Tongan Archipelago proper. The islands I refer to in par- [103]
ticular, named from north to south, are Fonualei, Toku, Late, Kao, and Ata
or Pylstaarts. The first is now a hopeless wreck due to volcanic activity. 133
Toku, Late, Kao, and Ata are no longer inhabited. Late and Kao are high [162]
volcanic islands. Ata is high and presumably volcanic. Toku is low and
according to Tongan informants coralline. Most of my information con- 128
cerns Ata. Before taking up that island I shall first discuss the brief
data concerning the others. As will appear, these outlying islands some- [727]
times served as havens for the politically disfavored. (See Harangue about [166]
Mumui, p. 156, in which the poet exclaims, "Exile me to Toku Island.")

Toku and Fonualei were held by a single group of people. Toku seems 162
to have been the residence center and Fonualei the farming center, the 311
Toku people utilizing Fonualei for gardens, perhaps because of the volcanic

[Toku, Fonualei and Kao Islands]

soil. The population of Fonualei became so large and permanent that a 162
church was erected there. The maximum figures for the two islands were 311
one hundred souls on each in the time of the chief Abraham Tangaloa.
However, the fertile land of Fonualei became a desert waste with the volcanic [731]
eruption of 1846. The people removed to Toku in time to avoid loss of life. 162
Later the entire Toku population was moved to the Vavau group proper 166
by the missionaries, for convenience in church attendance. Their descen- [797]
dants seem to reside principally at Utulei, Pangaimotu Island.

The Toku people were political exiles from Haamea in the central dis- 727
trict of Tongatabu. The people of Haamea fought the Hihifo people dur- 166
ing the reign of the Tui Kanokupolu Mataeletuapiko and were overcome. 175
They fled to Toku under the leadership of the Haamea chiefs Tukutukuholoi-
pangai, Ofakehokomaikaetau, and a third chief. Talafaiva, daughter of the
Tui Haa Takalaua and (later?) wife of the Tui Tonga Uluakimata I
(Telea) was with them. The refugees were all of the Haa Takalaua and it [669]
seems likely that the struggle between Haamea and Hihifo was but a part
of the Tui Kanokupolu's effort to eclipse the Tui Haa Takalaua. It is said
that people from Makave in Vavau went to Toku to help the chiefs from
Haamea. When the Haamea refugees arrived at Toku they found Niuatoputapu people in possession. These were ordered to leave and did so peaceably. This settlement of people from Haamea must have occurred in the seventeenth century if the references to Mataeletuapiko and Talafaiva are correct.

The son of one of the refugee chiefs from Haamea became the ruler of the Toku people under the title of Tangaloa. The last Tangaloa was Abraham Tangaloa of Utulei, Pangaimotu Island. The Tui Kanokupolu appointed the Tangaloa. The second Tangaloa bore the personal name of Katainatoa.

The god of the Toku people was incarnate in the *tukuhali* or sea snake, 776
I could not learn the name of the god or the title of the priest. The Toku 825
incarnation of the god fell into a well. The well was in consequence filled 823
and a new one dug for use.

Tradition names the top of Kao Island, Haapai, as the site of a village, 823
a statement which is pure fiction, as I learned by climbing to the summit, [173]
3380 feet above sea level. A woman there one day said she was going for [361]
a walk. She intended to visit one of the coral islands which seemed to lie so close below that one could step over to it. She threw down her bundle of mats, then followed it, and was dashed to pieces on the rocks below. This tale is evidently told to illustrate the extreme steepness of Kao.

The ancient settlement on Kao was near the shore, not at the summit. 361
The shore settlement was probably on the northwestern side, nearest Tofua.

[Tofua, Late, and Ata Islands]

Early voyagers speak of Tofua as inhabited. An old woman, living on 162
Kotu Island in 1920, was the last inhabitant of Tofua. She was removed 888
by force by her relatives, who feared she was becoming too old to care for 602
herself and that the dogs might eat her if she became disabled. 825

Late Island, a volcanic cone lying west of the coralline Vavau group, 162
was formerly inhabited. The Late people and their descendants now live [133]
on Hunga Island in the Vavau group. Late served at times as a place of [166]
refuge for political exiles. Fukofuka, a Vavau chief, who incurred the disfavor [727]
of a great Vavau chief, presumably Ulukalala, fled there and sought
in vain to oppose the troops sent for him.

The people of Late seem to have had a quarrel of long standing with 628
the people of Moungaone Island, in Haapai, for each group seems to have
attacked the other at times. The fortress of Amaka on Late was built for [712]
refuge against Moungaone raids. The chief of Late bore the title of Totolate. [622]
There is one at present. He was appointed by the Tui Kanokupolu.

ATA ISLAND

My data as to the settling of outlying islands are by far the fullest 131
for Ata Island, lying about ninety miles south of Tongatabu and in latitude
22° 20′, almost at the tropic of Capricorn. Like Toku, Ata was a haven of [166]
safety for the certain political refugees. [727]

Ata was discovered and named Pylstaarts by Tasman in January, 1643, 177
while he was voyaging northward from New Zealand to Tonga. No mention 175
is made of signs of inhabitants and presumably it was not then occupied. [162] [173]
Tongan tradition makes the peopling somewhat later.

By 1791 Ata was inhabited. Thomson (21), discussing the voyage 175
of Captain Edwards in H. M. S. *Pandora,* says: "Running southward, he 162
made Pylstaarts, at that time inhabited by Tongan castaways, and the fact that he did not stop to examine it, although he saw by the smoke that it was inhabited. . . ."

In the Voyage of the Duff (65, 66), Ata is mentioned as uninhabited, which would seem to be a mistake since it was already occupied in 1791. Speaking of the Spanish discoverer Fran. Ant. Maurelle who passed
in March, 1781, the Voyage of the Duff says: "He also saw the high uninhabited [131]
spot, discovered and named Pylstaarts island by Tasman, in latitude 22° 22′, 175° 59′ west longitude. This he called La Sola."

West (62, p. 271) relates the following story about the peopling of 166
Ata: 173
266

> . . . strange tales are told of one of their chiefs, called Uhila, whose cannibal propensities had been intensified by a long residence in Fiji. This chief resided at Nomuka; but he was in the habit of making sudden descents upon different islands, for the purpose of clubbing and kidnapping any of the inhabitants he could lay hold of, with whose

[Ata Island]

wished that some one would take her daughter away on a voyage as 484 173
the daughter was the recipient of unwelcome attention from Teukava, one 166
of the sons of the great chief Ata. Teukava had ordered the girl brought
to an entertainment (*katoanga sike*), at which he forced the girls to appear
naked so that he might review them and decide which he desired. Latuhehea,
at her mother's wish, was taken away by the people of the island of Atata.
They took her to Ata. The Atata people also settled on Ata, presumably to
avoid Teukava's vengeance. The Houma people, themselves, could not take
Latuhehea away from Tongatabu because being inland people they knew
neither how to navigate nor to paddle and had no vessels of their own.
Whether or not Motuapuaka and Tapuosi were already dead when Latuhehea and the Atata people came is not clear. West (62) assigns the flight [264]
of the Atata people to Ata to desire to escape the raids of a cannibal who
dwelt on Nomuka Island, Haapai.

From Motuapuaka and Tapuosi to the informant James Tupouata (a 162
man of seventy years of age in 1920) was five generations. Table 15, [124]
(in pocket)^A shows seven generations of people who resided on or were born
in Ata. One hundred and fifty-one of the 163 people listed by me in a [124]
census of Ata inhabitants are included in this genealogy. The genealogical
evidence seems to point to the middle of the eighteenth century as the probable time of arrival of Motuapuaka and Tapuosi. The earlier growth of the 582
population was largely through cross-cousin marriages, as there were but
few accretions to the population from without. No doubt cross-cousin mar- [565]
riage was practiced to a far greater extent than in the general rank and file [184]
of the Tongan population, among whom such marriages were regarded as a
chiefly prerogative, not to be exercised by commoners. Marriages to relatives as shown by the Ata genealogy (Table 15) were as follows:

10-11: **Man to mother's father's sister.**
14-15: **Man to father's sister's daughter.**
19-20: **Man to father's sister's daughter.**
21-22: **Man to father's sister's daughter.**
21-24: **Man to father's sister's daughter.**
25-26: **Man to father's sister's daughter.**
27-28: **Man to father's sister's daughter.**
29-30: **Man to mother's brother's daughter.**
34-35: **Man to mother's brother's daughter's daughter.**
39-40: **Man to mother's brother's daughter's daughter.**
41-42: **Man to mother's brother's son's daughter.**
43-44: **Man to mother's father's sister's son's daughter.**
48-49: **Man to mother's father's son's daughter.**
36-38: **Man to mother's brother's daughter's daughter.**
57-58: **Man to mother's sister's daughter's daughter.**
70-71: **Man to mother's sister's daughter.**
73-74: **Man to mother's paternal half sister's daughter.**
92-93: **Man to father's father's daughter's daughter's daughter.**
94-95: **Man to father's paternal half sister's son's daughter.**

A /See Category 173, End Table A-C --Analyst/

[Ata and Niuatoputapu Islands]

So the kava root was chewed and squeezed and eaten, and the people drank it, then 184
all lay down drunk. After the first infusion of the kava the strainings were divided 776
and each house was given a share so that each house had a drink. On this occasion it was Mu'a, the mother of Julia Ukulolo, who did the chewing and who after the bowl was brought squeezed and strained the kava. Julia Ukulolo was an informant interviewed in 1921.

The population of Ata had its maximum with about two hundred individ- 162
uals, one hundred of which were children according to modern informants. In fact at the time of removal to Eua it was said that there were one hundred school children.

About 1860 a serious disaster overtook the islanders. The following 648
account of what happened was obtained from Tupouata who was at the time twelve or thirteen years old. Another informant, Julia Ukulolo, was eight or nine years old and was in school at the time that the disaster befell. The disaster was in the form of kidnapping by a Peruvian ship. Julia's older brother was taken away by this raider. Tupouata also laid the trouble to the treachery of a Tongan named Paul Vehi, who had been educated in Sydney during a sojourn of two years and who claimed to have been appointed mayor of Ata by King George I. The Ata people were already Christians when the raid occurred.

When the Peruvian raider appeared she was black with white doors painted upon her sides to make her look like a man-of-war. Vehi went aboard and presumably arranged the kidnapping. When he returned ashore, he made a proclamation that each family was to send a good-looking man aboard with provisions to sell. There was to be no selling on shore, and furthermore the selling on the ships was to take place below decks. Once the Ata people were aboard they were sent to various rooms to select the goods they wanted in exchange. After entering the rooms the doors were locked. Just how many were kidnapped I could not learn. Eight men who were waiting in boats beside the ship escaped, for one of them perceived what had happened. They were however pursued by the ship's boat.

When King George I heard about the raid he sent the three schooners 166
Sialeataongo, Elenoa, and Tupou to bring the people away from Ata, lest more of them be kidnapped. The schooners sailed to Eua, but were unable to land the people on account of the heavy sea. They were therefore taken to Nukualofa and lodged temporarily at Pangai, the site of the present wireless station. Large quantities of food were furnished the refugees by the king. Later they were transported to Eua where they and their descendants now live.

NIUATOPUTAPU ISLAND

Niuatoputapu (Niua Doubly Prohibited) is one of the two northern 131
outlying groups of the modern Tongan kingdom, the other being Niuafoou
or New Niua. Niuatoputapu perhaps derives its name from the privilege 103

2: Mariner F-5 (1806-1810) 1818
OU9 Tonga OU9

build a large and strong fortress, and to put 668
themselves in a state of defence against any in-
cursions that Finow might make upon them, 669
or, rather, which Toobó Toa might urge him 634
to make.

The proposed fortress was to be the largest 712
that ever was known in the Tonga islands, to
be, in short, a fortified town, capable of holding [162]
all the inhabitants of Vavaoo (about 8000 in number), with their houses and burying-places, to be built round the Mooa*, and constructed, as usual, of reed fencings, much on the same plan as that of Nioocalofa, formerly described, but to be surrounded by a deep and firm-set bank of solid clay, about twelve feet high, with a ditch on the inner side of it, from which the clay would be furnished, and thus be proof against the guns: within this ditch, and next the fencing, was to be another bank of clay, smaller than the other. The whole of the materials of the fencing was to be proportionably strong and good.

Among a great deal of information which the 701
old mataboole communicated, was that respect- 157
ing the bravado of a Vavaoo warrior, who de-
clared his utter contempt of the guns. It is 411
customary for every professed warrior, before [553]

---

* The chiefs' houses are generally situated together, and [361]
this place is called the Mooa, the metropolis of the island.

11: Sullivan D-4 (no date) 1922 OU9 Tonga OU9

161 According to the Tongan census of 1920 there were at that time 23,128 Tongans in the group. Census returns for the past twenty years show that as a whole the Tongan population is increasing slowly. A temporary decrease was shown in the reports for 1918 and 1919, but returns for 1920 show a slight
162 increase. It is of interest to notice also that there has been considerably less modern mixture with other races than in many other Polynesian groups. The census of 1917 records only 300 mixed bloods. How accurate this may be I do not know, but since the same census records only 347 Europeans and 529 other Pacific islanders, it is apparent that there have been fewer opportunities and temptations to marry outside the race than there have been in many other places where the aboriginal inhabitants are greatly outnumbered by the Europeans or Orientals. These facts should be borne in mind.

DISCUSSION AND CONCLUSIONS

Comparison of the Tongans with the Samoans has thus shown remarkably 141
close resemblance between these two groups in almost every detail. The few small 142
differences might well be considered as accidental or as reflecting slight local 144
differences, were it not for the fact that they point in the main in one direction.
From the general direction of these differences it seems most reasonable to assume
that they are the result of Melanesian intermixture.

In another publication[1] I stated that I saw no reason for assuming any
appreciable amount of Melanesian blood in Samoa. Perhaps this statement should
be qualified to make its meaning clearer. The census returns show that there are 162
in Samoa and Tonga a considerable number of natives of Fiji and other Melanesian 144
islands. In both of these island groups there are persons of known and admittedly
mixed Melanesian-Polynesian parentage. These facts are known and require no
anthropological research to establish them. In view of these facts it is desirable to
determine to what extent the population styling itself as of pure Samoan or of pure
Tongan origin has been in the past affected by Melanesian intermixture.

This problem can be solved only by determining the degrees of differences 128
and likenesses in the groups concerned. The results, however, can be expressed
only in general terms, for there are no known factors in the equation. From the 000
marked general differences in physical type between Samoans and Melanesians I
conclude that the amount of Melanesian blood in Samoa is very small. This may
be due to the fact that intermixture never took place on a very large scale in Samoa,
or that if it did take place on a large scale it was so long ago that the Melanesian
element is almost completely absorbed by the general Samoan population.

In Tonga conditions are somewhat different. Enough Melanesian blood is 144
in evidence to alter noticeably the average physical type. But such correlation exists
between the various Melanesian traits in individuals and groups that when individuals
are classed on the basis of one Melanesian trait the averages in many other
traits also reflect the Melanesian intermixture more clearly than do the Tongans
as a whole.

From this it may be assumed that the Melanesian element in Tonga is either 144
comparatively recent or considerable in amount. The chances are in favor of recent 162
rather than great intermixture, but since skeletal material of known chronological
sequence is lacking, no definite conclusion is possible. It may be said, however,
that without much doubt there is considerably more Melanesian blood in the general
Tongan population than there is in the general Samoan population.

In their broader racial affinities the Samoans and Tongans are very similar, 144
and therefore what I have said of the Samoans holds for the Tongans. Never-

---

[1] Op. cit.

133 The island of Pangai has a greatest height of 290 feet
(131) and a total area of 2,188 acres. All the island makes up one
(423) of the royal estates. There are two villages, Pangai and
(643) Utulei. In 1931 their populations were given as 250 and 104
36 respectively.[4] The division of acreage between the two
(162) villages is roughly indicated on the island map (Fig. 1).[A]
(423)

Because the principal economic activity of the villagers
128 is gardening and cultivation of root crops mainly, a note
(241) may be added on soil and climate. The following information[5]
refers specifically to 'Uta Vava'u but there is no reason
to think that it does not apply equally well to the island of
134 Pangai. The islands are of a coral-formation on a volcanic
base. The soil is rich and fertile. The climate is sub-
132 tropical with a humidity in mid-summer that is severe and
which has a year-round mean in Neiafu of 77 per cent. The
rainfall is fairly heavy with a wet season from December to
April and an occasional short but injurious drought between
October and December. (Rainfall range in Neiafu, 68 to
103 inches, mean of 82 inches.) The soil of the island is
312 very porous and water may be obtained easily by sinking
a well. Today however, the villagers rely on concrete
cisterns to obtain water for drinking and domestic purposes.
The number and location of these cisterns in Pangai village
is shown on the map (Fig. 2).[B] The prevailing winds are
132 the south-east trade-winds. During the rainy season,
hurricanes are an ever-constant threat to the villagers. Only
731 occasionally do these hurricanes occur with disastrous effect.
Every year however, the possibility of hurricane means an
ever-recurrent anxiety. A hurricane does great damage to
the gardens and cultivations and generally means food-shortage for many months thereafter. Even strong winds
of less than hurricane force may cause great damage if they

[TEXT CONTINUED ON PAGE 10]

---

(104) Tongan orthography. No confusion need arise: it should be obvious that the village of Pagai on the map is the same village referred to as Pangai in the text. It is hard to answer the very natural question as to why we use these two orthographies thus, instead of one only. Presumably we think the Polynesian system more correct than the Tongan system although we would feel guilty if we tampered with the standardized spelling of place-names on a map.

[4] According to our household census, the population of Pangai in December, 1938, was 268 (see p. 69).

(113) [5] From Wood, A. H., *History and Geography of Tonga*, Auckland, 1938, pp. 85-86.

A. [See category 116, p. 6--Analyst]
B. [See category 116, p. 9--Analyst]

blow at the time of, or immediately after, heavy rains when 132
the ground is soft and consequently the roots of the trees 731
have little grip in the muddy, yielding soil.

THE VILLAGE

Pangai village is a relatively self-contained economic 621
unit. The villagers look upon their village as their chief
source of satisfaction for both work and play. There is, of [628)
course, continual coming and going between Pangai and
other nearby villages. On the half dozen times each year 574
when the banana and tourist boat calls at Neiafu (population 628
in 1931, 1610 people), many Pangai people, men mostly, [162]
congregate in Neiafu to see the sights and to gossip with
relatives and friends from other villages. Each year a few 871
youths from the village go off to school in Nukualofa, capital 484
and chief port of the Kingdom on distant Tongatapu, 170
miles to the south. They travel by small motor vessel or [505]
more hazardous cutter. Sometimes they return to Pangai
for the annual vacation. Often they stay with relatives in
Tongatapu until their schooling is finished. Adults rarely 484
make the journey to Tongatapu. For the most part they 574
stay in the village, relieving monotony by occasional visits
to Neiafu.

The map of Pangai village (Fig. 2)[A] sketches the lay-out 361
of house-lots which together take up an area of about 20 423
acres. There are four church buildings. One of these is of 368
European, church-like form; another is a small simple foursquare
board structure; the remaining two are Tongan-style
architecture. The school-house is a small frame
building, bare inside and out. The children sit on the floor.
The community bark-cloth-making house stands next to the
school-house. It is a larger frame building that stands
empty and unused most of the year. The two stores are 366
again small frame buildings with large copra-drying platforms 417
and small copra storehouses alongside. 343

The style of house common in the village is also 342
indicated on Figure 2. Of the 50 dwelling houses, 36 or 72
per cent. are Tongan style, 14 or 28 per cent. are European [177]
frame houses with iron roofs. Most of the Tongan style
houses are built according to old-time native practice with [178]
coconut-sheet wall-screens and coconut mat thatching. A

[A] [See category 116, p. 9--Analyst]

comes into contact consist of a handful of whites, Asiatics, 177
and Hindus. The Asiatics are mostly Japanese store- 609
keepers, the Hindus tailors, and the whites are store- 177
managers, government servants, missionaries, their wives 609
and dependants. For the Kingdom of Tonga the proportion 563
of Tongans to non-Tongans, according to the police census [162]
of 1937, was about 31 to 1; in Neiafu in 1938, the proportions were more nearly 50 to 1. Tongans therefore make up the large majority of the population. By law, whites, Asiatics, and Hindus may not take up residence in the small Tongan villages; elsewhere they may lease land only. The Pangai villager therefore sees whites in his village only when the government doctor makes an occasional visit. When the villager visits Neiafu he may come into contact with the white doctor or the white postmaster, perhaps with the white store managers (though store-attendants are generally half-caste Tongans), possibly with the few white missionaries or the Asiatics or Hindus (if his business takes him to a Japanese store, requires the services of a Japanese commercial photographer or needs the skill of the Hindu tailor). The villager's knowledge of, and attitudes to, the non-Tongan foreigners stem from his contact with these individuals, from his observations of a few tourists and travellers, and from any further contacts he may have had with these foreigners during residence in, or visits to other parts of the Kingdom.[1]

The general attitude of the villager to foreigners is one 177
of curiosity and interest which gives way to a matter-of-fact 609
acceptance of them and their services (medical, administrative, spiritual, commercial) on the basis of greater
familiarity. The villager furthermore tends to reflect a 186
common attitude of pride in being Tongan which is naturally more pronounced in the larger towns of the kingdom. Buried somewhere in his mind is the slogan, "Tonga for the Tongans" which is the expression of this

---

[1] It may be noted that there are no discernible influences of either Japanese or British Indian cultures upon village life. The only exception to this was the provision at one feast we attended of two Japanese fans, covered with advertising, for us to use to keep away flies. The Japanese manager of the Japanese-controlled store in
Neiafu has a Japanese wife and children. His store sells the usual [366)
run of trade-goods in which all South Seas stores specialize. The Hindu tailor is married to a Hindu wife. He also keeps a small store.

the household head and twelve types of matrilineal relationship of household members to the wife of the household 592 602
head. Out of the total of 268 persons covered by the household census, 32 are living matrilocally. Hence household 592 602
grouping of relatives is predominantly patrilocal and 591
patrilineal. Patrilocal residence is the rule for marriage. This is emphasised by the fact that in only five of the marriages recorded is there matrilocal residence. The 592
biological family of mother, father, and children composes (594)
fourteen of the forty-four households. It is also the basis for a further fourteen households. Daughter's children and (596)
father's sister's children are the most common kin among the additional members of all the households.

In Pangai village there are forty-four households. This 592
gives an average household membership of 6.1 persons. 162
Omitting three anomalous households which consist of one person each, the average for forty-one households with a total membership of 265 is 6.5 persons per household. That this figure corresponds to a fairly typical Polynesian norm is shown by the following table:

TABLE 10.—HOUSEHOLD MEMBERSHIP[17]

Place	Pukapuka	Hawaii	Futuna	Uvea	Tonga
Average Membership	6.5	6.9	8.0	8.77	6.5

These figures suggest that the Polynesian household ranges between six and eight persons. For comparison it may be noted that the average size of the American urban family is about 3.43 persons. The Polynesian household, therefore, is much larger than the white family and manages to hold its size despite years of contact with the ways of the white man. The size of the household group may in fact be taken as a rough index of the degree to which the Polynesian in general has assimilated patterns of white behaviour in contradistinction to the tenacity with which he holds on to native patterns of household-organization and the social values which are implied by this type of large household-grouping.

[17] These comparative figures are from Beaglehole, *Some Modern Hawaiians, University of Hawaii, Res. Bull.* 19, 1939, 49. (113)

592 162 The variation in the numerical composition of the Pangai households is shown below:

Persons per household —	1	2	3	4	5	6	7	8	9	10	11	12
Number of households —	3	3	2	4	9	5	1	6	5	4	1	1

Households with a numerical membership of four to ten persons account for seventy-seven per cent. of the total number of households.

Adoption

597 There are two types of adoption practised in Pangai. The first is a permanent adoption *(ohia)*. It involves a complete change of family and household. The child is bespoken generally before or immediately after birth. The adopting parents provide food for the pregnant mother and [553] for the infant during the nursing-period. They also name [862] the child, taking possession of it after weaning is completed. At this time the break is made with the blood-parents and the child is thereafter known as the child of the adopting parents. As it grows up it will learn kinship terms and [867] terms of respect for the relatives of its adopted parents, not [601] for those of its own blood-parents. It will also expect to [428] inherit property, status and rank, if any, from its adopted parents.

The other type of adoption is an impermanent feeding-relationship *(tauhi)*. Relatives ask for a child or parents ask relatives to take a child if the relatives are lonely or elderly or if the parents find that they have more mouths in the household than there is food to go round. The relatives feed and care for the child, but the child may return to its parents any time it is convenient or circumstances so change [603] that this return is desirable. Very often grandparents take [428] charge of a grandchild in this way, leaving property to the grandchild when they die.

The feeding-relationship is the more common of the two types of adoption. Of twenty-five cases of adoption known to informants among the village population of 268 persons, only two were of the permanent type, the remainder being of the feeding-type. It is obvious from this that complete

771 they probably represent not so much significant differences
795 in the pursuit of spiritual truths but rather symbolic
standards which served in the past and still serve today in
the life of the village as catalytic agents in the obscure
struggles of unusual personalities to secure expression in
their conflicts with group-interests.

794 Church membership in Pangai is shown in the following
795 table:
162

TABLE 14.—CHURCH MEMBERSHIP IN PANGAI.

Church	Membership Men	Women	Boys[31]	Girls	Total	Per cent. village membership	Per cent. kingdom membership (Census 1931)
Free Wesleyan Church of Tonga	25	32	27	23	107	41	58
Free Church of Tonga	24	12	21	16	73	28	16
Church of Tonga	6	4	7	7	24	9	10
Roman Catholic Church	14	12	15	16	57	22	12
Other Churches[32]	—	—	—	—	—	—	4
Totals	69	60	70	62	261	100	100

797 That the Tongans have really believed in their religion
795 in the sense of taking some doctrinal differences seriously,
however, is shown by a brief glance at the religious history
of the kingdom. The mission of the Wesleyan church was
begun in 1822 and again in 1826. The mission of the Roman
Catholic church began in 1842. Doctrinal differences
797 between these two missions and between the missions and the
798 still pagan Tongans, were inextricably mixed in the early
795 wars of Tonga, particularly in the war of 1852 when the
669 scattered islands were being united into one kingdom. The
Tongan history-books stress the fact that this war was fought
purely for political reasons and that religion had no part
in it (as if politics and religion can be separated as neatly
in the lives of men as they can by words on a printed page!).
It is significant, however, that the king's army was composed
mostly of Wesleyans while one of the strongholds this army

---

[31] Boys and girls, according to the classification of the church rolls, include those under the age of about sixteen years.

[32] "Other churches," of which there are none in Pangai, include the Church of England, the Church of the Latter Day Saints, and the Seventh Day Adventists. These three churches had a total kingdom membership in 1931 of 1,271 people.

for less than a dollar. As soon as it transpired 692
that there was nothing in it to preclude one 693
Tongan from pleading for another, every native
who could talk better than he could work took
to loafing about the police courts, offering him-
self as a mouthpiece to the litigants. His [465]
fees were tentative at first—"give me what you
like if I get you off," and so on—but now he
likes to be paid in advance, though you can brief
him with a sucking-pig and keep him going
with an armful of yams as a "refresher." The
loya who enjoyed the largest practice were those
who had the code at their finger-ends, and had
acquired a high reputation for obscuring the issue
and confusing the common sense of the court.

The chief justice also gave me a summary 161
of the birth and death returns for the nine
years ending December, 1899. I do not regard [659]
them with any confidence, partly because I
know the haphazard way in which the registers
are kept, and partly because, assuming the total
population of the kingdom to be not less than
19,000,* the death-rate is represented as low as
eleven per thousand and the birth-rate as high

---

* The Mission returns put the total population at 19,968: Tonga- [162]
tabu, 8,454; Haapai, 5,087; Vavau, 4,589; Niuatobutabu, 710;
Niuafoou, 1,128. The males exceed the females by 454, or 2·2 per
cent., and the adults outnumber the children.

21: Simkin U-5 (no date) 1945 OU9 Tonga OU9

134

without spelling, probably owing to deficiencies of potash. There are 135
no minerals in Tonga, and no forest resources of value. 137

The islands in the volcanic chain are of little account. Only Niua 133
Fo'ou, Niuatobutabu, and Tafahi are large or safe enough to be 311
peopled, and they contain less than a tenth of the population. Two of them, however, have attracted some fame, Niua Fo'ou because of its Tin-Can Mail, and Falcon Island because of its periodic disappearances. This jack-in-a-box island is associated with an active volcano, whose eruptions occasionally leave a raised surface of ash and scoria which sea and rain later wash away.

The eastern chain is divided into three groups, Tonga Tapu in the 131
south, Ha'apai in the centre, and Vavau in the north. Tonga Tapu 162
contains about half the Kingdom's habitable area, and half its people 311
(16,234). Ha'apai has nearly the same population as Vavau, but less than half its habitable area.[2] Each group has a serviceable port, Nukua- 504
lofa in Tonga Tapu being the most important and also the capital.

Climatically[3] the Kingdom is well favoured, since it lies in the zone 132
of the southeast trades, and has no orographical obstructions to cause rain and high humidities. The tropical Niuas have much the same rainfall and temperature as Apia and Suva, but the other groups have

---

[2] The following statistics illustrate the size, distribution, and density of the population (1939 Census) 161
162

Group	Population	Tongans	Habitable Area	Persons per sq. mile	Percentage of Tongans
			sq. miles		
Tonga Tapu	16,234	15,324	134.8	120	47
Ha'apai .	7,483	7,383	24.3	308	22
Vavau . .	8,199	7,957	56.1	143	24
Niuas . .	2,214	2,198	20.6	108	7
TOTAL . .	34,130	32,862	235.8	145	100

[3] The following climatological statistics (supplied by the Director of Meteorological Services, Air Department, New Zealand) illustrate in outline Tonga's principal climatic characteristics: 132

	Nukualofa	Vavau
Annual mean sea-level pressure (mbs)	1014	1013
Annual mean air temperature (°F)	74	78
Annual mean daily maximum temperature (°F)	80	82
Annual mean daily minimum temperature (°F)	68	72
Average annual rainfall (ins.)	63.45	77.57
Percentage of winds between south and east	72	68
Average wind force in morning (m.p.h.)	8	6
Average wind force in afternoon (m.p.h.)	10	7
Annual average relative humidity (a.m.)	79%	77%
Annual average relative humidity (p.m.)	73%	—
Annual mean of sea temperature (°F)	77	79

000 ants, until the time [Uvea] of our own visit thither, and for many dreary months of suffering after that.

Having thus glanced at the main facts connected with the rise and progress of religion in the two Niuas and in Uvea, we now proceed with the details of our own voyage thither; upon which occasion I was accompanied by my esteemed friend and colleague, the Rev. Walter J. Davis.

797 We sailed from Vavau on Monday, June 6th, 1848. Passing in the immediate vicinity of the ruined and still burning island of Fonua Lei about three P.M., we stood on, and reached Niua Tobutabu on the following day, about eleven A.M. The
133 island is about six miles long, and two broad. There are several tolerably high hills in the centre, but otherwise the land is low. The population
[162] consists of about six hundred or seven hundred people. Toward its western extremity, the island is divided by an inlet of the sea; and there is, in that direction also, an immense sandy flat, stretching away toward another lofty conical island, called Tafahi, which lies about seven miles distant from Niua Tobutabu. Tafahi is certainly an extinct volcano, and it attains an altitude sufficiently high to make it plainly visible from a distance of fifty
131 miles. Niua Tobutabu is the Kebble's Island of English charts; and Tafahi is, probably, that
114 known as Boscawen's Island. The latter name has been sometimes assigned, in the charts, to Niua Foöu, which is evidently a mistake; for its relative position will not correspond at all with that describing Boscawen's Island. Considerable difficulty is felt in identifying this island, as well as many others in the Pacific Ocean, whose position has not been properly defined, owing to their remoteness

423 inherited. In the case of hereditary estates the inheritance descends to
428 the issue of the deceased holder *in infinitum*. Males and females may
[562] succeed, but male issue is preferred to female of the same degree.
Thus the estate devolves upon the eldest son of the deceased holder in
the first instance, and if he dies, to his eldest son; if there is no such
son, then to his eldest surviving brother who now carries on the line
[818] under the same rules. A person not born in wedlock may not succeed;
but for this purpose a person is regarded as legitimate even if he was
obviously conceived before the marriage of his parents.

423 There are similar rules regarding tax allotments. The inheritance
428 descends in the first place to the eldest son of the deceased holder; and
562 if he dies, to his eldest son. If there is no such son, then his eldest
surviving brother may succeed. But where there is neither son nor
brother to succeed, an unmarried daughter may succeed for her life.
If there are several daughters, however, they may succeed jointly for
[581] their lives. A female's right to land under these laws may be put aside
[833] if she marries or if she is proved in the Land Court to have indulged
in sexual intercourse. With both males and females interest in land
is never more than a life interest.[16]

3—A Sample Tongan Village and its Lands

The village in which I investigated the operation of this system is
101 situated four miles from the capital town of Nuku'alofa. It is a fairly
162 large village with a population of 653 persons living in 106 households.
621 The village population represents 1.24 per cent of the entire population
of Tonga.

The strongest single force binding the members of the village
621 together is their common allegiance to their high chief who is also the
622 high chief of a number of other nearby villages. He is recognized as
[431] having the authority to call upon every household in the village to
supply gifts of yams and pigs, mats and *tapa* cloth, whenever the need
arises for such accumulations to be made, such as on the marriage or
[431] death of a member of Royalty or of the nobility. Although there are no
specified occasions for the presentation of first fruits to him by the
villagers, and he does not call for any, particular households do occasionally perform the service voluntarily in recognition of his position.[17]
423 Apart from the political aspect of such position, it has also a very
621 important economic aspect: the estate from which individual tax allot-
622 ments are granted to members of the village are his hereditary *tofia*.
Tax allotments are regarded as being held from him, and this exercises
a powerful influence in upholding his authority and strengthening his
position in relation to the whole village.

621 There is also a Town Officer, who is appointed by the Government
644 to be its representative within the village and through whom it makes

---

[16] A person who succeeds to the title to land in this context holds the land for himself. He may permit others, including his brothers, to derive sustenance from it, but this gives them no right of their own to it.

[17] See in this connection Beaglehole 1941:19.

32: Staveley & Douglas D-4 (no date) 1959

OU9 Tonga OU9

BLOOD GROUPS IN TONGANS, (POLYNESIA)[1]

By J. M. STAVELEY and R. DOUGLAS

125 RESULTS OF TESTING 200 Tongans for various blood groups and abnormal haemoglobins are the subject of this report. A blood group study of this population has been reported by Kooptzoff and Walsh.[2] These workers tested 102 subjects for the A_1A_2BO, MNS and Rh systems. We have extended the blood group systems tested to include P, Lewis, Kell, Duffy, Kidd, Diego, Wright, Vel, Sutter and the serum Gm groups. Saliva was also examined for secretion of ABH and Le^a substances, and a search was made for abnormal haemoglobins.

GEOGRAPHICAL FEATURES[3]

101 The kingdom of Tonga consists of about 200 islands in three major
groups, Tongatapu in the south, Vava'u in the north, and the Ha'apai
133 group lying between these. The islands of Vava'u are generally high and
mountainous, those of Ha'apai and Tongatapu low-lying and of coral
131 formation. The kingdom lies between 15° and 23° south and 173° and
177° west, and is free from malaria.

[361] Nuku'alofa, the capital, is on the main island of the southern group,
Tongatapu, and lies 1,100 miles north-east of Auckland. The population
161 162 of the kingdom in 1959[4] is given as 58,351, of which 56,669 are Tongans,
and 1,682 part Tongans, Europeans and others.

173 According to tradition, the inhabitants of Tonga came from Samoa
somewhere about 950 A.D.

COLLECTION OF SPECIMENS

125 With the approval of the Government of Tonga, Dr. Sione Tapa,
126 Chief Medical Officer, generously undertook the selection of the subjects
and the collection of the specimens. In this work, Dr. Sateki Tupou, Assistant Medical Officer, played a big part. From each selected person, a clotted blood specimen and blood in Alsever's solution with added antibiotics was obtained by venepuncture. The saliva specimen was obtained after the mouth had been rinsed with water, and was heated in a boiling water bath for ten minutes.

[101] The samples from the 200 people concerned in the study were collected in batches of 50; one batch in May 1959, two during July 1959, and one in September 1959. This allowed the collection to take place just prior to the departure of a ship for New Zealand. It also allowed the testing of each batch to be completed during the week after arrival

---

[122] [1] This work was carried out under a grant from the Auckland Medical Research Foundation.

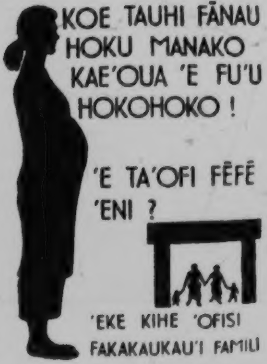
[2] Kooptzoff & Walsh, 1957.

[3] Pacific Islands Year Book, 1956:109.

[4] Pacific Islands Year Book, 1959:111.

39: Gerstle & Raitt C,Q-4,5 (1952-1972) 1974 OU9 Tonga OU9

346



161
162
349
←
159
⇆

Population is becoming a major problem. There are approximately 92,000 people in Tonga; however, distribution is very uneven, for more than half are now living on the rapidly urbanizing island of Tongatapu—many having moved from outer islands in search of better employment or educational opportunities. Photo above is at St. Andrew's (Anglican) School in Nuku'alofa. At right is a family planning poster which, in essence, reads: *"I love children, but not one after another!" What can you do? Inquire at the Family Planning Office.*

Kuo kamata ke fu'u tokolahi 'a Tonga. 'Oku fe'unga mo e toko 92,000 he taimi ni, pea 'oku laka hake 'i he vahe ua 'a e kakai 'oku nofo 'i Tongatapu. Lahi foki e hiki ki ai mei he ngaahi 'otu motu kehe koe'uhi ko e kumi ngaue pe ko e fie ma'u ha ako lelei ange. Ko e 'Apiako 'Ingilani (St. Andrews) e 'oku ha 'i olunga, pea ko e akonaki e ki he fakakaukau'i famili 'i to'omata'u.

178 George Tupou. The new laws concerning relations between chief and
361 commoner gave the ordinary Tongan much more independence and
565 freedom of movement; while other laws obliged chiefs to allocate
622 land to their followers which in effect usually resulted in the allocation of town and country land. The distinction between *'api kolo*, the place to reside, and *'api tukuhau*, the place to cultivate, was thus sharpened by legal definition, but it seems probable that while the laws encouraged the new form of settlement in some places, in others they merely confirmed what had become an established practice. In the 1920s Tungi, the husband of the late Queen Salote, sought to encourage people on his *tofi'a* or estate to return to dispersed living. By forfeiting their right to an *'api kolo*, they could obtain 12½ acres of *'api tukuhau* instead of the customary 8¼ acres. This venture was not very successful and in three of the four villages where it was encouraged, most of the people have now returned to the village centre.

THE DISTRIBUTION OF POPULATION

162 There is evidence to suppose that settlement was more widespread than
361 it is today, although the populations involved were often small. The volcanic islands have apparently always been less densely settled than
[312] the coral islands of the group. They are too small to provide permanent fresh water streams, much of their area is too steep for cultivation, landing places are poor, and occasional volcanic eruptions are a further deterrent to settlement. Their isolation, however, heightened their attraction in times of civil disturbance and most were occupied until the mid-nineteenth century. Only Niuafo'ou and Niuatoputapu continued to support relatively high populations into this century, and the former
[621] was evacuated following an eruption in 1946. As with earlier resettlements, an attempt was made to maintain old social groupings and nine Niuafo'ou villages were re-established in 'Eua.[10]

[312] The coral islands also lack fresh water but the habitable area is often more extensive, the soils of many have been enriched by ash showers, the surrounding reefs make for good fishing, and communications are easier. There are, however, some notable exceptions. Uoleva, for instance, always appears to have been uninhabited. Its sandy loams are unsuitable for growing yam and, although visited by people from nearby Lifuka and farmed to some extent, there is no record of

---

[10] Not all resettled in 'Eua; about half stayed in Tongatapu. Of earlier settled islands, 'Ata is reported to have had a population of 200, consisting of refugees from several islands until Peruvian raiders forced its evacuation in the 1860s. Its inhabitants were resettled in a new village called Ha'atua in 'Eua. Refugees from Tongatapu resided on Toku and farmed the more fertile nearby Fonualei until an eruption in 1846 led missionaries to persuade its inhabitants to move to Utulei in Vava'u. Similarly Late, Kao and Tofua were all inhabited prior to the mid 1860s.

42: Walsh K-4,5 (no date) 1970 OU9 Tonga OU9

permanent settlement. The same is true for some of the smaller Ha'apai 162
islands: they have been farmed from nearby islands, but have never 361
supported permanent populations. In Vava'u, the uninhabited islands
are often small, steep and rocky, while the small islands off Tongatapu
which were once inhabited are today the preserves of sojourning fisher-
men. Of more interest is the large island of 'Eua (34 square miles), the
reason for the small population of which has long been an enigma.
The difficult passage to Tongatapu is said by Tongans to be the main
reason for its low population. While this could deter intensive settlement 162
a more likely factor, as Maude surmises, is the scarcity of seafoods. 361
Maude, in seeking a rationale for adjacent areas of high and low 261
density within the group, has suggested that densities are generally
determined by a *balance* of both land and sea resources. Where sea
resources are limited or access to them difficult, as in parts of eastern
Ha'apai and Tongatapu, in the higher parts of 'Uta Vava'u, and in
'Eua, population densities are low; conversely, where the shores and
reefs are highly productive, as in the smaller western islands of
Ha'apai and the western tip of Tongatapu, densities are high. This,
broadly, can be assumed to have influenced traditional settlement pat-
terns, which only today are being modified as population increases
and new influences, such as urbanism, take their effect.

Estimations of the size and distribution of population within the 161
group prior to the first census (1921), of which there are no extant 162
records, rely on what at best can be termed informed guesses, some- 127
times supported by mission returns and head counts. None of the
censuses until 1956 can really be considered reliable. Of these earlier
censuses McArthur states that fluctuations of the populations of in-
dividual islands "are such as to arouse considerable doubts of the
accuracy of either the recording or summarising of the data."[11] Table 1
is presented with this warning heeded, but in the belief that several
broad conclusions can be drawn from it.

This table shows an overall pattern of population decline and re- 161
covery common in the Pacific following contact with Europeans. [177]
Tupouniua has suggested three contact phases:[12]

1. *1643–1799*: A phase in which there is no record of—"large scale destruction through diseases, and wars were totally unknown. Presumably, therefore, there was a balanced and vigorous population with steady population growth."

2. *1799–1852:* "A phase of bewilderment and social disintegration
marked by a sense of insecurity. There was much rivalry for power [669]
between chiefs that . . . ended in armed conflicts . . . (while) . . . several [165]
epidemics are reported to have occurred with heavy loss of life." [731]

---

[11] McArthur (1967): 81.

[12] Tupouniua (1958): 17-18.

42: Walsh K-4,5 (no date) 1970 OU9 Tonga OU9

161 McArthur has recalled in some detail evidence of loss of life during this period.[13]

161 Such contemporary observations as were made were not always
731 supported by other evidence, but it can be assumed that the ravages
165 of war and disease affected the various islands unevenly and at different
163 times, epidemics probably having fewer widespread effects than in the
582 larger islands of the Pacific; there was a high mortality rate, especially
797 of infants; and, with few in the reproductive age groups, a sex imbalance, and later marriages (induced partly because of the "grim social code of the missionaries"), the population declined considerably.

I

161
162
Distribution of Population by Island Groups (percentages)

	Pre-contact[1]	1840[2]	1891[3]	1921[4]	1939[5]	1956[6]	1966[7]
Tongatapu	43.9	43.2	—	—	—	55.0	61.9
'Eua	2.0	0.8	—	—	—	3.4	4.4
Tongatapu and 'Eua	45.9	44.0	36.6	42.6	46.2	58.4	66.3
Ha'apai	21.9	21.6	28.2	25.2	21.9	17.5	13.7
Vava'u	21.9	21.6	26.5	24.4	24.0	22.0	17.5
Other[8]	10.4	12.4	8.7	7.8	7.9	2.2	2.6
Total population	29,700	18,500	19,968	24,935	34,130	56,838	77,429

[1] Estimated by Maude (1965): 27.
[2] Wilkes, cited by Maude: ibid.
[3] Missionary account. Census 1956: 17.
[4] Wood (1952) Appendix 6.
[5] Census 1956: 41.
[6] Ibid.
[7] Census 1966: 36.
[8] Niuafo'ou and Niuatoputapu. Niuafo'ou had no population in 1956.

161 3. *1852–* : "A phase of adjustment and recovery" dating from
1852 when the civil war ended, but probably having little effect on
[731] growth until the 1890s. From this date the population grew "slowly
but irregularly" from some 20,000 in 1891 to about 24,000 in 1918,
[165] with occasional epidemics still taking a large toll of life. The increased
[751] growth rate in recent years, due largely to improved health measures
[731] and the absence of epidemics, has produced a population at least
double the most generous estimates given for the pre-contact period.
Thus between 1891 and 1931, the annual rate of increase was 1.1
percent; between 1931 and 1956, 3.1 percent, and between 1956 and
[166] 1966, 3.6 percent. This increase, together with the marked movement
of population to Tongatapu referred to below, suggests that Tonga has
now entered a phase of dynamic growth. Tupouniua's phase of "adjustment and recovery" can be said to have ended in the 1940s.[14]

---

[13] McArthur (1956): 202-206; and (1967): 68-75.

[164] [14] —— (1967): 96. An epidemic of measles in 1893 is reported to have killed
[165] a twentieth of the population, and an influenza epidemic in 1918 a tenth of the population of some islands.

The distribution of population within the group has changed considerably 161
from pre-contact days, with population movement being more 162
responsible for this rather than inter-island differences in birth or [166]
mortality rates. During the nineteenth century, the relative importance
of Tongatapu declined compared with pre-contact times; it regained
its former importance only in the 1940s, since which time it has
accounted for over half the total population. Together, Ha'apai and
Vava'u retained their former importance until well into this century,
the former until the 1940s, the latter until the 1960s. Population loss
has been greatest from Ha'apai, and Vava'u has exceeded it in population
since the 1920s. Undoubtedly there were movements of people [166]
within each island group, but we have no record of these from which
to make an estimate until the 1931 census, about which McArthur has
considerable reservations, especially with regards to Vava'u.[15] For this
reason only broad changes can be discussed.

Compared with the overall annual rate of population increase from 161
1931 to 1956 (3.1 percent), Tongatapu increased at the rate of 6.1, 162
'Eua, due to Niuafo'ou resettlement, at 18.1, Ha'apai 2.2, Vava'u 2.5 166
and Niuatoputapu 2.4. Clearly, there was a considerable movement to
Tongatapu, the greatest increases occurring in and around Nuku'alofa,
in the centre, the east and the south-centre. Ha'apai was the greatest
area of out-movement, with only Ha'ano, Pangai-Hihifo and the two
small islands of Mango and Fonoifua having increases in excess of the
national average. Vava'u was also an area of out-movement, but this was
not as marked as for Ha'apai. Within the Vava'u group, the growth
rate in many of the offshore islands was low and one lost population.
Most villages in 'Uta Vava'u approximated the national increase, and
there was a significant increase in the higher northern and western parts
of 'Uta Vava'u. Neiafu's slow growth (2.1 percent) can probably be [871]
accounted for by its commercial decline since World War II, and the
number of school children seeking education in Tongatapu. (41 percent
of all Vava'u migrants in Nuku'alofa in 1956 were from Neiafu.)

Population Changes, 1956–66

Between 1956 and 1966 Tonga's population grew by 3.6 percent per 161
annum; its composition became even more youthful (median age: 16.6 162
to 15.9); more male dominant (with the sex ratio changing from
103.5 to 105.9, for Tongans only, and an excess of males in all age
groups under 60); and more Tongan (97.04 percent to 98.5 percent).

The population of all island groups increased, but with the accelerated [166]
movement of population, the rates of growth differed widely:
from 'Eua 7.6 and Tongatapu 5.3 to Niuatoputapu 1.1, Vava'u 0.8, and
Ha'apai 0.6 percent per annum.[16] The overall population density for

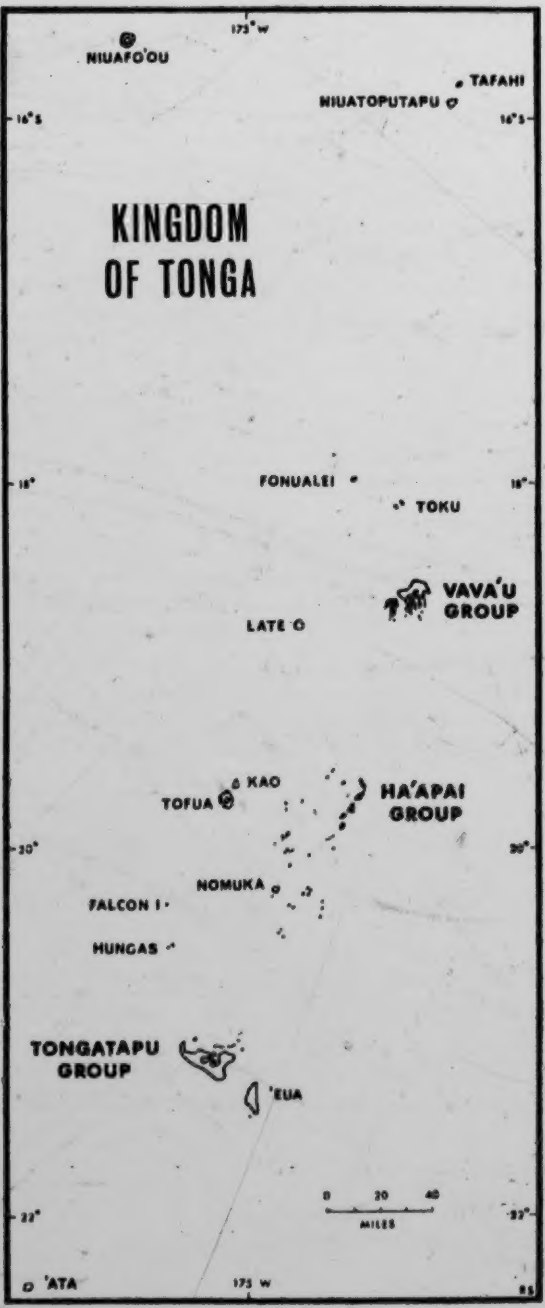
---

[15] McArthur (1956): 210, 214; (1967): 84. Maude (1965): 68-71, and Walsh (1964): 225-228 show details of population changes by village, 1931-56.

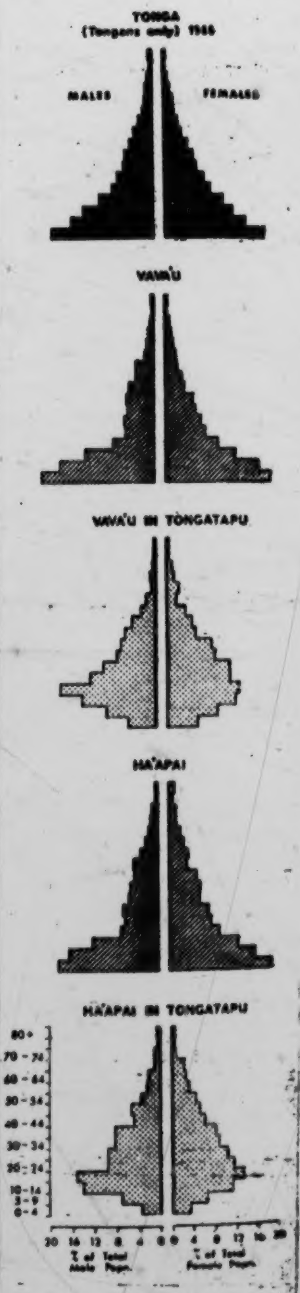
[TEXT CONTINUED ON PAGE 35]

42: Walsh K-4,5 (no date) 1970 OU9 Tonga OU9

161
162
102
131


KINGDOM OF TONGA
173° W
NIUAFO'OU
TAFAHI
NIUATOPUTAPU
16° S
16° S
18°
18°
FONUALEI
TOKU
VAVA'U GROUP
LATE
KAO
TOFUA
HA'APAI GROUP
20°
20°
NOMUKA
FALCON I
HUNGAS
TONGATAPU GROUP
'EUA
0 20 40
MILES
22°
22°
'ATA
175 W

ONE



42: Walsh K-4,5 (no date) 1970 OU9 Tonga OU9

2

Enumeration Districts and Percentages Born In and Outside Districts (Tongans only)

161
162

Based on figures derived from the 1956 and 1966 censuses.

Enumeration District		% born in district	% born outside district
Tongatapu	1956	78.6	21.4
	1966	78.2	21.8
Ha'apai	1956	84.9	15.1
	1966	86.3	13.7
Vava'u	1956	81.6	18.4
	1966	87.1	12.9
'Eua	1956	48.1	51.9
	1966	46.8	53.2

each group for 1966 is shown below, with 1956 figures in parentheses:
Tongatapu 480 (313); Ha'apai 523 (498); Vava'u 304 (279);
Niuatoputapu 191 (172); and 'Eua 100 (57). Niuafo'ou, resettled
during this period, had a population of 599 in 1966, and Tofua also
now had a permanent population of 123. Settlements expanded, and 161
with no new ones founded, *average* village sizes increased in the three 162
main groups. Tofua and the three main towns excepted, Tongatapu 361
villages now averaged 529 (362), Ha'apai villages 346 (309), and
Vava'u villages 283 (275). Outside Tongatapu, Leimatu'a in Vava'u
remained the only village with over a thousand people; but in Tongatapu
the number of such villages nearly doubled, from four to nine.

Table 2 shows the changed percentage of populations living in the 161
islands of their birth in 1956 and 1966, and Table 3 shows where 162
166

3

Birthplaces and Enumeration Districts (Tongans only)

Based on figures derived from the 1956 and 1966 censuses.

		District of Enumeration (percentages)			
		Tongatapu	Ha'apai	Vava'u	Eua
Tongatapu	1956	90.0	3.8	4.7	1.1
	1966	92.9	2.2	2.3	2.0
Ha'apai	1956	24.1	69.5	5.5	0.7
	1966	32.3	62.0	3.9	1.4
Vava'u	1956	16.5	2.6	80.1	0.4
	1966	24.9	2.9	70.2	1.3
'Eua	1956	18.0	2.1	1.4	78.4
	1966	20.0	1.7	1.3	75.3

people born in the main groups were living in these years. The less important islands of Niuatoputapu and Niuafo'ou are not shown. These tables suggest marked differences in the stability of population, ranging from Tongatapu, where 93 percent of the population born there were still residents in 1966, to Ha'apai, where the figure was 62 percent;

---

[36] Figure 2 shows the changing growth rates by islands in the Ha'apai and Vava'u groups, and figure 3 shows similar changes by village in Tongatapu.

161 and a sharp deterioration in stability between 1956 and 1966, especially
162 with regards to Vava'u and the overall pace of migration to Tongatapu.
166 Table 3 also helps to place the respective migrations to Tongatapu and 'Eua in better perspective. Although migrants from all islands had increased in both islands, the *various* attractions of Tongatapu were clearly more important than 'Eua's one attraction—land, even, apparently, for those born in 'Eua of which a fifth were resident in Tongatapu in 1966. The table also shows a drop in the percentage of Tongatapu-born residing in Ha'apai and Vava'u. Most people born in Tongatapu and residing in these islands are government and church officials, women married to local men or children born in Tongatapu of Ha'apai and Vava'u parents. The percentage loss is likely to involve these last two groups. With one foot, so to speak, already in Tongatapu some decided to remain or return there.

A comparison of the population structures of Ha'apai, Vava'u with the migrant populations from these islands residing in Tongatapu in 1966 is provided by Figure 1. Both Vava'u and Ha'apai were under-represented in the secondary school and working age groups; both were over-represented in the very young and older age groups; and both had a lower proportion of males than the Tongan average (sex ratio Ha'apai 98.5; Vava'u 102.5). Conversely, the migrant populations from these groups living in Tongatapu in 1966 had a marked excess of males (Sex ratio Ha'apai 107.5; Vava'u 115.6) and a heavy weighting in the secondary school and working age groups. Between 1956 and 1966, the number of Vava'u-born in Tongatapu increased by 104 percent and the number of Ha'apai-born by 65 percent, and the proportion of these migrant populations in the school age group had decreased, from 33 to 28 percent for Vava'u and 28 to 27 percent for Ha'apai.

The areas most affected by out-movement, therefore, continued to be the many islands of Ha'apai and, more significantly, Vava'u. In Ha'apai four villages lost population, while all others increased at rates less than the national average. In Vava'u a further five off-shore islands lost population, the growth noted earlier in north and west 'Uta Vava'u was not sustained, a third of the villages in Vava'u lost population, and only two increased at a rate equal to the national average.

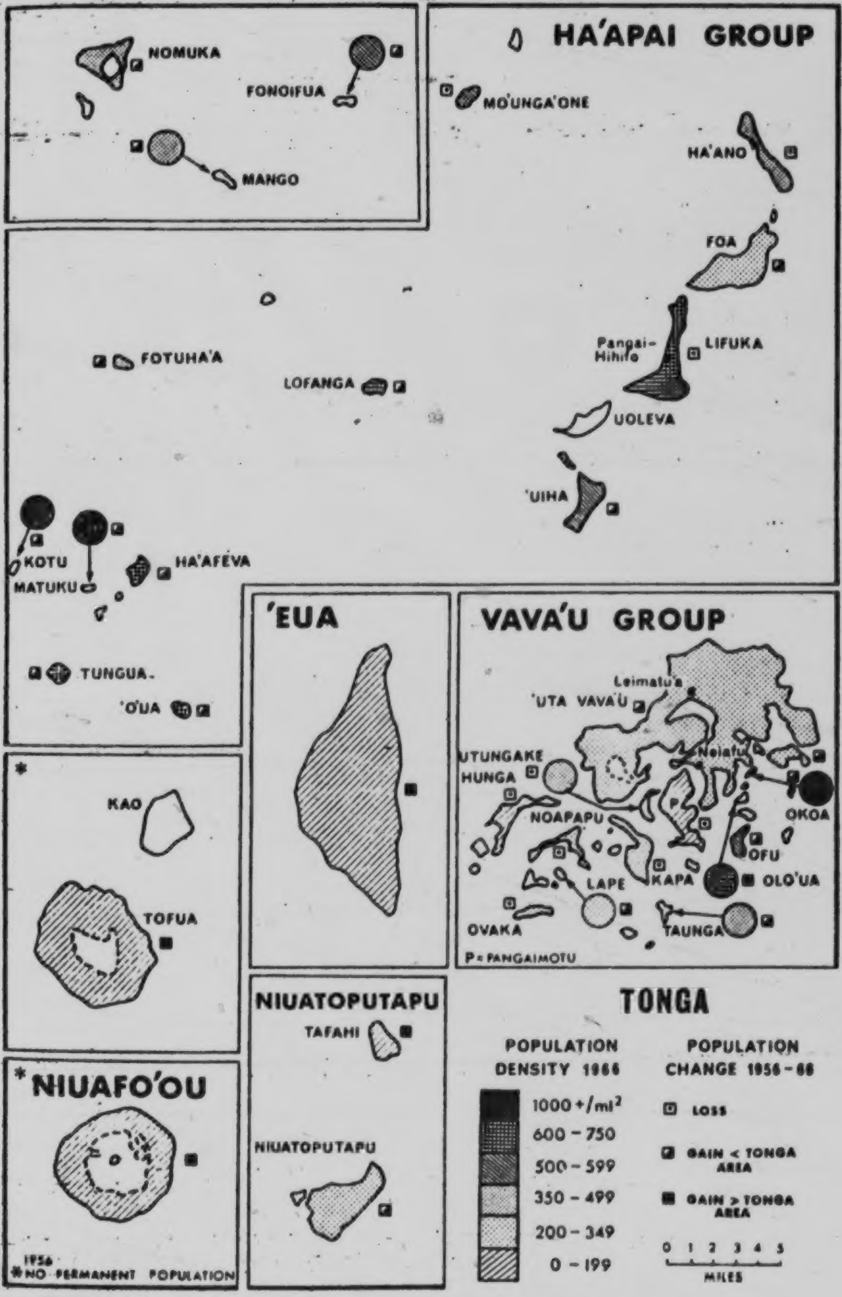
The areas of Tonga most affected by in-movement were Niuafo'ou; 'Eua, where land availability and its proximity to the markets of Tongatapu now counterbalanced some of its earlier limitations; and Tongatapu itself. The three areas in Tongatapu still most affected were: the eastern district with the lowest population density; the east-central district close to residential secondary schools, where certain nobles have made land available and where there is a tradition of in-movement from Ha'apai; and Nuku'alofa and its environs.

[361] This last mentioned movement, to Nuku'alofa has special significance, for it introduces a new element, urbanisation, into the history of Tongan

[TEXT CONTINUED ON PAGE 38]

42: Walsh K-4,5 (no date) 1970 OU9 Tonga OU9

102
161
162
166


HA'APAI GROUP
NOMUKA
FONOIFUA
MANGO
MO'UNGA'ONE
HA'ANO
FOA
Pangai-Hihifo
LIFUKA
FOTUHA'A
LOFANGA
UOLEVA
'UIHA
KOTU
MATUKU
HA'AFEVA
TUNGUA
'O'UA
'EUA
VAVA'U GROUP
Leimatu'a
'UTA VAVA'U
UTUNGAKE
HUNGA
Neiafu
NOAPAPU
OKOA
OFU
KAPA
LAPE
OLO'UA
OVAKA
TAUNGA
P
P= PANGAIMOTU
*
KAO
TOFUA
NIUATOPUTAPU
TAFAHI
NIUATOPUTAPU
* NIUAFO'OU
1956
* NO PERMANENT POPULATION
TONGA
POPULATION DENSITY 1966
1000+/mi²
600 – 750
500 – 599
350 – 499
200 – 349
0 – 199
POPULATION CHANGE 1956 – 66
LOSS
GAIN < TONGA AREA
GAIN > TONGA AREA
0 1 2 3 4 5
MILES

TWO

161 population movement and the rapidity and extent of its growth since
162 1956 are likely to have important consequences which will bear
166 heavily on traditional political, social and economic customs and
361 practices throughout the kingdom. Until the mid-1950s, population
movement was more especially to rural Tongatapu rather than to Nuku'alofa. Thus during this period (1931-56) Nuku'alofa's annual growth rate (5.2 percent) was less than that of rural Tongatapu (6.3 percent), but since then the growth rate of Nuku'alofa (7.4 percent) has exceeded that of rural Tongatapu (5.3 percent). The most urban part of the town, Kolofo'ou, grew at an even faster rate (8.6 percent) while nearby Havelu Loto, the centre of the only sizeable industry on the island,[17] grew at the fantastic annual rate of 35.7 percent between 1956 and 1966. Where village growth exceeded or nearly approximated that of Nuku'alofa, it was either in very small villages, where an influx of a handful of settlers would give apparently spectacular increases, or in settlements to the centre and east of the island for reasons noted above. In 1956 Nuku'alofa contained 29 percent of Tongatapu's population and 16 percent of that of the kingdom; in 1966 these percentages had risen to 33 and 20 respectively.[18] This demonstrates both the increasing importance of Nuku'alofa in terms of total population and the marked tendency for population movement to Tongatapu to be urban-orientated.

[554] Factors *pushing* people out of the outer islands and *pulling* them
towards Tongatapu and Nuku'alofa are: the greater opportunities for
[511] social mobility in recent years: the changing economic needs of the
[505] average Tongan; easier transport between islands; and, more recently,
[207] the advertising (over the Tongan radio) of the attractions of Nuku'alofa;
[447] overpopulation; land tied up in title disputes and in other ways kept
[423] back from distribution; the low price for copra; two hurricanes in the
[435] northern islands in 1961 and 1963; and the decimation of the banana
[132] by black leaf streak and other diseases in Vava'u. If one single cause
[245] can sum up these various and interrelated factors, it is the need for
money.[19]

It is not possible to know which islands and villages have recently contributed most to Nuku'alofa's growth, for the 1966 census contained
[127] no special statistics on towns. The following remarks, therefore, are
[101] based mainly on information extracted from the 1956 census sorting

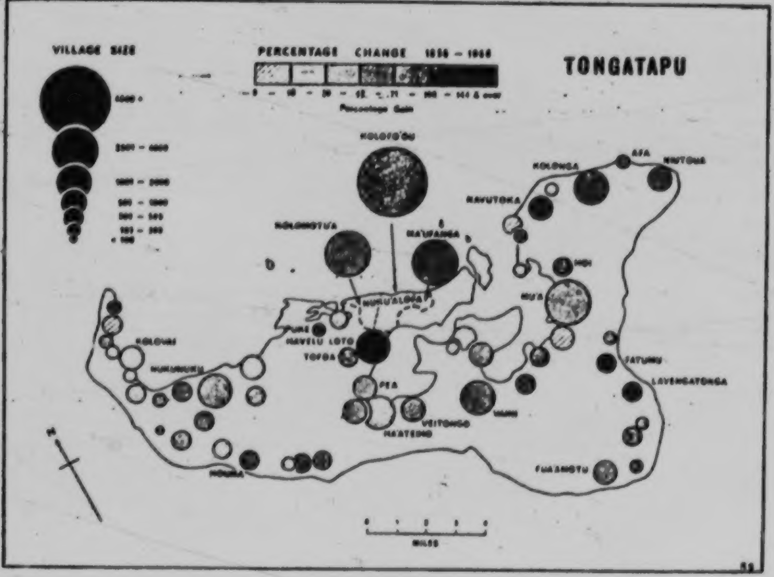
---

[655] [17] Quasi-government industries producing coconut by-products and furniture.

[18] Of the other two towns, Neiafu contained 23 percent of the Vava'u population in 1956 and 26 percent in 1966; the respective figures for Pangai-Hihifo were 28 and 25 percent. Neiafu grew at an annual rate of 2.5 percent; Pangai-Hihifo lost population (—0.5 percent p.a.)

[19] Walsh (1964): 179-197 discusses migrants' reasons for moving to Nuku'alofa. Some implications of these factors are discussed below. See 'Mobility and Economic Development.'

42: Walsh K-4,5 (no date) 1970 OU9 Tonga OU9


VILLAGE SIZE
PERCENTAGE CHANGE 1956 – 1966
Percentage Gain
TONGATAPU
KOLOFO'OU
KOLOMOTU'A
MA'UFANGA
NUKU'ALOFA
KOLONGA
AFA
NIUTOUA
NAVUTOKA
HOI
MU'A
PUKE
HAVELU LOTO
TOFOA
KOLOVAI
NUKUNUKU
PEA
VEITONGO
HA'ATEIHO
FATUMU
LAVENGATONGA
FUA'AMOTU
HOUMA
0 1 2 3 4
MILES

161
162
166
361
[102]

THREE

cards and from fieldwork undertaken in 1963-4. They relate to movement from other parts of Tongatapu, and from the northern island groups of Ha'apai and Vava'u which together accounted for almost all the town's migrant population at that date.[20] [127] [101]

Urban Movement—1956

Movement to Nuku'alofa from other parts of Tongatapu was more significant in terms of numbers than movement from the other islands, but it mainly involved young people, especially college girls, and women, many of whom had married into local families. For this reason it is thought to have fewer social and economic implications than migration from outside Tongatapu. There did, however, seem to be a more normal migratory pattern from the more densely populated west of the island. This area was, and still is, the slowest growing, and the proportion of migrants in the school age group was less than elsewhere. The area also has long-standing cultural ties with Nuku'alofa through mutual association with the *tu'i kanokupolu* title which appears likely to have influenced migration in the past and initiated a pattern of chain migration which still continues today.

---

[20] Much of the following section is based on Walsh (1969a).

42: Walsh K-4,5 (no date) 1970 OU9 Tonga OU9

161 162 166 361 Another significant area within Tongatapu from which migration to Nuku'alofa occurred was Mu'a, the next largest town on the island. It accounted for over half of the migrants from the mid-eastern district. This gave rise to the hypothesis that there appeared to be some correlation between town size and migration to Nuku'alofa. This was supported in the case of most Tongatapu settlements, in Ha'apai where Pangai-Hihifo accounted for nearly one-third of all migrants from Ha'apai, and Neiafu which accounted for 41 percent of migrants from Vava'u. These figures were in excess of their share of the population of their respective groups. Migration to Nuku'alofa appeared more significant from the larger towns, while migration from the smaller settlements appeared more rurally orientated.

Although the larger towns were generally not the most affected by out-movement there is no evidence of significant 'short distance rural-urban' or 'step' migration towards them such as has been noted of [602] migratory movements elsewhere.[21] This is understandable when one considers the limited—and declining—attractions of these towns, the ease of transport to Tongatapu, and the Tongan kinship network which [602] ensures a welcome in almost every major island of the kingdom.[22] The precise destination of the migrant is usually determined by where he has relations on whom he can depend for shelter, food and often land.[23] If he has no relation in Nuku'alofa he will move to relations in rural Tongatapu, and if later he finds work in Nuku'alofa he may choose not to change his residence because of the short distances involved. It is well to recall the limited size of Tonga when making comparisons with migratory movements in larger countries.

Migration from Ha'apai, as expected, was of greater significance. This group is densely settled, it had the lowest growth rate in the kingdom, migration was more male-dominated, and it had the lowest proportion of children in the school age group. Migration from Ha'apai further demonstrated the importance of traditional, and especially kinship ties in forging a migratory chain. An example of this was Ha'ano, on the island of the same name, which had a very high migration rate. Early contact with Seventh Day missionaries had led to the migration of several families to Nuku'alofa. Several of these, taking advantage of better education gained through contact with the mission, became influential citizens. The significance of education in improving status, and the increased obligations towards one's kin consequent on this improved status, was reflected in the number of fellow villagers who followed upon the initial movement to Nuku'alofa. In the larger Ha'apai islands there was a definite correlation between population density and

---

[21] See McGee (1965): 209.

[22] As, for example, evidenced by gift exchange. See Walsh (1969b): 97.

[23] Walsh (1969b): 95.

out-movement, but this did not appear to be a factor causing migration 161
to Nuku'alofa as distinct from movement to rural areas in Tongatapu 162
and elsewhere. 166

Migration from Vava'u to Nuku'alofa in 1956 was not especially 361
significant. Population densities were relatively low; the main island is the third largest (33 square miles) in the group, and is quite fertile. There appeared, in 1956, to be no reason why access to land should be difficult. At that date, two-fifths of the migrants came from Neiafu and were children in the school age group. Educational opportunities therefore appeared to be the main goal attracting migrants, whereas land and employment were more clearly the main causes of migration from Ha'apai. Since 1956 the Vava'u pattern has changed considerably, as we have already seen. The main reasons for this would seem to be: government failure to distribute *'api tukuhau* although land is available, the low level of capital invested in the group, banana crop failures and the low price for copra. However, from the figures available, there is no way of knowing whether this new movement has affected the rate of migration to Nuku'alofa, as distinct from the rural areas of Tongatapu. For this, access to the sorting cards of the 1966 census would be necessary.

The accelerated out-movement from Vava'u in the last decade has added further to the economic imbalance among the islands. Out-movement from the tiny, scattered islands of Ha'apai is long-standing, readily understandable in terms of their resources and in economic terms is probably justifiable. Movement of this magnitude from the much larger and more fertile islands of Vava'u (and especially from 'Uta Vava'u) with relatively low population densities and much economic potential appears to have less economic justification in terms of the overall development of Tonga's resources.[24]

MOBILITY AND ECONOMIC DEVELOPMENT

Kirk, among others, has stated that "mobility is an integral part of 161
economic and social development".[25] While there can be no doubt 162
that the accelerated movement of population noted in Tonga is a result 166
of economic and social change, such changes do not represent economic development while the rate of movement so far exceeds the rate of economic growth. Parts of rural Tongatapu can still absorb more migrants but the rate of movement cannot be sustained indefinitely without seriously depleting soil fertility, unless there are radical changes in the system of land use and tenure. In the present political climate these appear unlikely. One wonders, also, just how long those at the end

---

[24] See Walsh (1967a) (1967b).

[25] Kirk (1958): 16.

42: Walsh K-4,5 (no date) 1970 OU9 Tonga OU9

161 of the migratory chain will observe traditional obligations towards their
162 fellow kinsmen which to date have tempered the full effects of migration.
166 If continued migratory pressures should cause a change of values
at this level, it seems highly probably that attitudes towards authority,
rank and status in general will also change. This could have serious
consequences for government.

The effects of migration on the outer islands should also not be
[871] under-rated. Informants stated that boys successful in their schooling
did not return from Tongatapu.[26] The outer islands are therefore losing their most talented youth, people who could become what Breese calls 'representatives of decentralising government programs.'[27] The decline of commercial activity has lead to an exodus of a small but vital group of part-Tongans and Europeans, and many Tongan families exercising traditional roles of leadership have also left for Tongatapu.

464 Even more serious is the rapid growth of Nuku'alofa where, despite
162 government efforts, the number of jobs available continues to decline.
Nearly half of the males in the working age group (20-59 years)
423 claimed, during fieldwork in 1963, to be employed in agriculture. It
162 was then estimated that some 31 percent of household heads were without access to land. The 1966 census showed the situation to be more serious: Fifty-eight percent of all Tongan males were without land, and 83 percent in the 15-29 year age group; while 67 percent of Nuku'alofa males had no land, and the figure for the 15-29 year age
464 group could also be expected to be higher. While Nuku'alofa accounted
162 for a higher proportion of those in non-agricultural activities in 1956,
women constituted 35 percent of the work force and government provided over a quarter of the jobs. As the percentage of those employed in non-agricultural activities decreased slightly (20 to 19 percent) between 1956 and 1966, it is clear that the overall employment situation had deteriorated. When one realises that 'persons entering the work force in the next ten years will be eight times greater than those retiring' the task of providing further employment is formidable.[28] In such a situation it will be politically disastrous if measures are not designed to create an increasing number of jobs and to encourage people to remain in rural areas.

179 Hirschman has suggested three alternatives in planning: dispersal,
concentration on growing points, and the promotion of backward areas. Both he and Lewis have argued strongly for a concentration on growing points, claiming that 'unbalanced growth . . . sets up pressures,

---

[26] Walsh (1964): 165.

[27] Breese (1966): 42.

[28] McArthur (1963): Table 3, estimates those seeking non-primary employment would number 13,460 by 1971, assuming no expansion of primary industries since 1956, and 9,030 if such expansion is commensurate with the growth of the work force.

433 2. Growers suffer from a lack of incentives. One example of this
245 is the low price they are paid—45 percent of that obtained by
[435] the Copra Board.

[434] 3. A feeling of malaise and neglect by government in the outer islands.
[829] They have received directly only about 10 percent of development moneys, yet government needs to be *seen to be active* in this and other ways.

[829] 4. A fatalism which assumes that God and Government will eventu-
[181] ally provide, which obviates the need for individual action.

[829] 5. The panacea of tourism, the discovery of oil and other ventures that are expected to produce Kuwait-type returns. This obviates the need to turn seriously to agriculture.

181 In a society where initiative belongs to the chiefs, government is
622 the only significant innovator. As most of the reasons for low production
565 seems to be cultural in origin, cultural solutions are most likely to solve
659 them. This, initially, means a reappraisal of priorities and a reallocation
006 of funds; a close examination of present methods of land use and land tenure; a revised education system which places less stress on academic learning; and the use of radio and other media to 'play-down' the attractions of Nuku'alofa and Tongatapu, for these are often highly exaggerated in the minds of the islands' population. Only direct government intervention can reduce migration to a rate where it more closely approximates economic development.[34] And as all of Tonga is a 'backward area' in relation to the countries with which it has economic connections, direct government intervention from these countries is also necessary to stimulate and maintain development. This, basically, requires better trade and shipping conditions and a higher rate of investment, not an increase in aid which in itself is unlikely to stimulate growth.

CONCLUSION

161 In summary, population movement is not new in Tonga. While some
162 older patterns, such as dispersed settlement, the full occupance of the
361 smaller islands adjacent to Tongatapu and 'Uta Vava'u, and the siting
166 of settlements in areas where there is a balance of land and sea resources, appear to have gone or been severely modified, other trends suggest the re-establishment of older patterns—the resettlement of some of the volcanic islands, possibly a more widespread use of the interior of islands, and the pre-eminence of Tongatapu and its capital, Nuku'alofa, which in a limited political sense could be considered the modern counterpart of ancient Mu'a with all its attendant powers of central authority. Other patterns continue—population moves among

---

[34] Cf. Myrdal (1966): Chapters 3, 4.

islands as a constant readjustment between real and assumed expectations, 161
and movement is still much influenced by social factors 162
concerned with reciprocal obligations of kin, of chief and commoner, 166
of the village, the church, of factors concerned with social cohesion and 361
unity.

Some new patterns have emerged. The high southern *liku* coast of Tongatapu is attracting population as other areas become more congested. Many villages have grown beyond the expected optimum size for
social cohesion, and some have coalesced.[35] It seems likely that new [571]
social groupings will cut across the village and possibly undermine kin [602]
groupings which, to date, have eased problems often associated with
population increase and movement elsewhere. Many of the factors influencing [178]
population movement are new, the two most obvious and [871]
important being education, which permits social mobility in a society
still noted for its rigid stratification, and money, the wherewithal to [555]
achieve many new expectations, and increasingly a necessity for even [565]
the most isolated islander. Nuku'alofa is no longer a village; it has [436]
many of the characteristics of a town, and its rapid growth, its problems [171]
and attempted solutions tally with patterns of urbanisation in other parts
of the Pacific. Moreover, the pace and direction of movement—to 166
Nuku'alofa and Tongatapu—have prompted government development 179
policies which have further exaggerated the economic imbalance among 361
islands, leaving Vava'u with land tied up in title disputes and Tongatapu overflowing with people who have migrated in anticipation of opportunities which must often exclude the legal occupance of land.

Traditional attitudes to kin, rank and land have helped Tonga to 178
meet the problems associated with population growth and movement with little social distress. This is true of the past, it is still true today, but it is not certain that it will be true of the future.

---

[35] Spillius (1959) considers the question of optimum village size. There were 13 settlements with over a thousand population in 1966. These accounted for 46.3 percent of the total population.

REFERENCES

Breese, G., 1966, *Urbanization in Newly Developing Countries*, Englewood Cliffs, N.J. 113

Fiefia, S. N., 1968, *Kingdom of Tonga: Report on the Results of the 1966 Census*, Nuku'alofa.

Gifford, E. W., 1929, *Tongan Society*, Bernice P. Bishop Museum Bulletin 61, Honolulu.

Hirschman, A. O., 1958, *The Strategy of Economic Development*, New Haven.

Kennedy, T. F., 1958, "Village Settlement in Tonga", *New Zealand Geographer*, XIV, 2, pp. 161-172.

Kirk, D., 1958, in *Selected Studies of Migrations since World War II*, Milbank Memorial Fund, Part III, pp. 11-29.

wettest months throughout Tonga, but the seasonal 132 pattern differs markedly from year to year. Applying Mohr's definition of a dry month (Mohr, 1944)[1] Nuku'alofa and Pangai have much the same incidence of dry conditions (with 23 and 25 per cent of all months in their respective rainfall records classed as dry), and are appreciably less humid than Neiafu with only 16 per cent of months classed as dry.

With the exception of some of the western Ha'apai 134 islands, where the soils are underlain by tuff, all the soils in the three main groups are underlain by coral limestone, but the major parent material appears to be the volcanic ash which has covered all the raised limestone islands. The main soil type is a fertile, friable soil termed *kelefatu* by Tongans and varying in texture from a loamy sand to a clay. The other significant type, *tou'one*, is a sandy and less fertile soil found at low elevations near the sea, and is proportionately most important in Ha'apai. About 85 per cent of the total area of the raised limestone islands is suitable for cultivation.

Most of the agricultural land has been surveyed 241 into allotments which are generally eight and a 423 quarter acres in size, except in Ha'apai and parts of Tongatapu and Vava'u where because of the population density, holdings have been reduced to between three and six acres. The allotments are held by individuals as lifetime inheritable leaseholds, but about 60 per cent of those males entitled to land do not in fact have an allotment and either borrow the use of land or depend entirely on other types of employment (Maude, 1970).

Population distribution is uneven. In Ha'apai, 161 southeastern Vava'u and western Tongatapu crude 162 population densities are comparatively high and range from about 450 to 700 persons per square mile, whereas in western and northeastern Vava'u and central and eastern Tongatapu densities are around 200 to 300 persons per square mile.[2] These [134] contrasts in population density date back to at least the nineteenth century and probably earlier and

---

[1] A dry month is one in which rainfall is less than 60 mm (2.36").

[2] Population densities are based on the 1966 Census (Kingdom of Tonga, 1968).

cannot be explained by variations in land quality. 161
Climatic and soil conditions in Ha'apai do not seem 162
dissimilar to those in Tongatapu, although in Ha'apai 134
the less valuable *tou'one* soil type occupies a
greater proportion of the total land area than in
Tongatapu; neither is there any evidence to suggest
that land in western Tongatapu is inherently more
productive than land in eastern Tongatapu. The 361
main explanation appears to lie in the relationship
between settlement and marine resources. Seafoods
have always been valued items in the Tongan diet, [262]
although fishing and reef-collecting have declined [226]
in recent years as canned meat and fish have become
more easily obtainable. Village settlement therefore
tended to concentrate where there was a good balance
between the resources of the land and the sea.
Where shores and reefs were productive but the 361
land area limited, as in the small islands of Ha'apai 161
and the narrow western point of Tongatapu, population 162
densities were higher than where productive
shores were backed by more extensive land areas,
as in central and eastern Tongatapu, or where unproductive
shores limited village settlement, as
along part of the south coast of Tongatapu. The
population growth of the present century has quickly
brought problems of land shortage to the former
areas.

THE AGRICULTURAL SYSTEM

The basis of present Tongan agriculture is a bush 241
fallowing system for the cultivation of tubers, the term *bush fallowing* being used to denote a form of shifting cultivation in which the fallow period is short (Morgan, 1959; Watters, 1960.)

The agricultural cycle begins with the selection of a plot for clearing, burning and planting, the selection being based on the requirements of the crop to be grown and the land available to the gardener. Tongans judge land by the type of soil, by the growth of vegetation and by their previous experience in cropping, but because of land shortage and the system of land tenure the area available to choose from is limited, despite the common prac-
tice of borrowing the use of land. Where the soil is 244
considered to be sufficiently fertile a yam patch (*ma'ala*) begins the cropping sequence, and most

[p.58-B]

The areas of high population density are the western 161
end of Tongatapu and all but one of the islands of 162
Ha'apai, and population densities in these areas
have roughly doubled since 1931 (Table 1). The 128
analysis is based partly on material collected by
observation and questioning throughout Tongatapu
and Ha'apai, and partly on more detailed data for
three villages with moderate to high population
densities (Table 2 and Fig. 1).

In areas of high population density fallow periods 241
are shorter and cropping periods tend to be longer 182
than elsewhere. In Ha'apai the cropping period is
usually from three to five years, compared with the
two to three years more common elsewhere. This 241
is indicated by item 6 of Table 2, for the ratio of
total per capita garden area to the per capita area 128
cleared in 12 months gives an estimate of the life 182
of gardens. The figure for Holopeka, however,
appears rather high, as in this village few gardens
were seen which had been cropped for more than
four years, and it seems likely that for some reason
a smaller area than was usual had been cleared for
new gardens that year.

The length of the fallow period, on the other 241
hand, is only one to three years in Ha'apai as com- 182
pared with three to five years elsewhere. This difference is also illustrated in Table 2, which shows the median fallow period (item 8), although the figures are based on too few gardens to be conclusive. Many farmers interviewed in Ha'apai claimed to be using shorter fallows than when they began

TABLE 1. POPULATION DENSITIES, 1931 AND 1966 (PER SQUARE MILE) 161
162

DISTRICT	1931	1966
Ha'apai*	316	517
Western Tongatapu**	248	540
Remainder of Tongatapu***	85	335

* Excluding Tofua, Kao and the unsettled islands.

** Including the villages from Ha'atafu to Fo'ui.

*** Excluding Nuku'alofa and the surrounding settlements of Hofoa, Puke, Sia'atoutai, Fatai, Haveluloto and Tofoa, and their lands. This has been done to remove the population of the urban centre of Nuku'alofa, the national capital, from the calculation of population density. [128]

[p. 60-B]

TABLE 2. AGRICULTURAL DATA FOR THREE VILLAGES, 1962

VILLAGE	HA'AVAKATOLO	HA'AKAME	HOLOPEKA
1. Location	Western Tongatapu	Central Tongatapu	Lifuka, Ha'apai
2. Population*	245 (1962)	299 (1962)	147 (1966)
3. Population density (per square mile)	460	390	588
4. Total per capita garden area (acres)	0.37	0.30	0.30
5. Per capita garden area cleared in last 12 months (acres)	0.18	0.17	0.05
6. Ratio of items 4 to 5	2.6	1.8	6.0
7. Number of households whose gardens were surveyed**	16	13	12
8. Median fallow period (years)	4.5	4.0	3.0
9. Number of gardens on which item 8 is based	12	9	8

* The 1962 figures were collected by the writer. The 1966 figure is from the census.

** These represent sampling fractions of one-third, three-tenths and one-half, respectively.

[p. 61-A]

161
162
241
182

43: Maude K-4,5 (1962) 1970
OU9 Tonga OU9

ing of the cropping period,[1] a change in the food 241
crop pattern, and a complete areal merging of the 182
bush fallow food cropping system and coconut [245]
growing. In some districts the agricultural system [161]
is now quite intensive by shifting cultivation standards, with a cropping period/fallow period ratio [162]
of about 1:1, and supports population densities of 500 to 600 persons per square mile (cf. Nye & Greenland, 1960, p. 128). However, despite the probable doubling in the intensity of cropping over the last three or four decades there has been no change in the most important element in the system, the technique of maintaining soil fertility. The vast majority of Tongan farmers still depend on a bush fallow, and while fertilizers are increasingly being used for some cash crops this is mostly in central and eastern Tongatapu, where the major commercial banana growers are concentrated, rather than in more densely populated and more intensively cultivated western Tongatapu or Ha'apai. Fertilizers are not used for subsistence crops, neither have [242]
other techniques such as planted fallows, composting, manuring or crop rotations been adopted. The agricultural system remains a fairly simple one, and the unsatisfactory features described in the previous section remain.

Two broad explanations for this lack of change in agricultural techniques can be offered. In the first place, it is possible that under Tongan conditions such improvements are not yet necessary. The soils, being derived from recent volcanic ma- 241
terials and not subject to intensive leaching in Ha'- 182
apai and Tongatapu, are of high inherent fertility. 134
While the increased intensity of cropping appears to have resulted in a moderate decline in fertility status, it is possible that yields have been maintained by the adoption of new crops, particularly cassava. Furthermore, Nye and Greenland (1960, pp. 123, 129) point out that under a bush fallowing system it is possible to crop at varying levels of intensity and fertility without catastrophic consequences to the soil, and that up to a limit decreases in yields resulting from an increase in the intensity of cropp-

---

[1] According to Nye and Greenland (1960, p. 123) the general response of shifting cultivators to population increase is to change only the fallow period.

[p. 62-A]

45: Aoyagi E-5 (1962-1963) 1966 OU9 Tonga OU9
Nukuleka

KINSHIP AND BEHAVIOUR IN A TONGAN VILLAGE

121 of Tongatapu Island 16 miles from the capital, Nuku'alofa. This village
[101] was selected for field work because it is one of the most isolated villages in
Tongatapu and because it is supposed to have retained the traditional way
of Tongan life. The size of the village was also suitable for the study.
124 Although I tried to speak the Tongan language as much as possible for
my daily life, the information for the study was collected in English
through an interpreter who was nineteen years old.

I The Village

The People

According to the Government census of 1956(5) the population of
162 161 Nukuleka was 209 (107 males, 102 females). There were 219 (109
621 males, 110 females) by my enumeration in December 1962. In spite of
the rapid population growth of the Kingdom in recent years, the increase
621 of population of this village has been slight. Among these 219 persons,
162 there are 15 temporary residents made up of two families whose heads
serve as the stewards for the two different churches in this village. These
621 15 residents being excluded, 204 is the village population. Of these 37
166 were born outside the village (male 10, female 25 and children 2). Eight
married men have come from elsewhere and two younger single men live
[162] at the home of relatives. The 25 women are married to the villagers. The
two children were brought here on their mother's second marriage.
Against the 37 who moved in, there are 36 who moved out of this village
(male 13, female 23). This figure is the number of persons who are
brothers and sisters of the present villagers and were born in Nukuleka but
now live elsewhere. It is difficult to count the moved-out otherwise. Most
of them, especially women, married out, and a few left the village because
they received land in another place or because they were adopted by the
relatives.

All the inhabitants are Tongan. There are 49 adult men over sixteen
621 years of age who are old enough to be entitled to receive *api tukuhau*, tax
423 allotment, and *api kolo*, town allotment, and at the same time are obliged
[651] to pay poll tax according to the Tongan law. The village had been the
[659] noble estate held by S. Pangia, but the Government took over direct control in the 1920s.(6) Simultaneously, the Government confiscated extra
land from the men who had had larger *api tukuhau* and redistributed
them to more villagers. Today, however, only 28 villagers have *api
tukuhau* of about 8½ acres each. A further 21 who are entitled to it have
not yet received it. The latter borrow the land to cutivate from their
[463] relatives or friends. Therefore, all men, without exception, are working
[241] the land.

Besides agriculture, the villagers are engaged in fishing. The village
621 location being favourable to fishing, a number of men go out to sea nearly
226 [432] every day. Most of the fish are consumed within the village, but a few

---

5. Report on the Result of the 1956 Census by Authority, 1958.
6. In the map after Gifford (1929) Nukuleka was a noble estate held by Panigs. A villager told me that the Government had examined the documents of the village in the law court and had taken it lawfully from him, although I could not find the record in the office.

16

CHAPTER II

THE NATIONAL SETTING

Since Tonga is little known, the national context of 121
the data presented in this dissertation must be indicated.
It is my argument in later chapters that access to land is
a limiting factor that may critically affect the range of
alternatives available to the individual. Accordingly, this 128
chapter describes the contemporary situation of increasing
population and growing shortage of land, followed by an
historical account of the system of land tenure. The chapter
also provides a further perspective on the particular village
in which research was based through a review of criteria of
differentiation among Tongan villages.

Geography and Natural Environment

The islands of Tonga lie east of Fiji and south of 131
Samoa in the southwest Pacific, between 15° and 23.5° South
latitude and 173° to 177° West longitude (see Map 1). The
northernmost island of Niuafo'ou is over 500 miles from the
southernmost island, Ata. There are about 150 named islands, 101
but only thirty-six of the islands were inhabited at the 131
time of the last census, held in 1966 (Fiefia 1968: 38). 162

162 101 131 133 The inhabited islands comprise 238.81 square miles--almost 90% of the total land area. Thus, most of the islands of Tonga are little more than elevated reefs. The total land area of the country is under 270 square miles, and all but seven of the islands are less than five square miles in area.

Geologically, Tonga is made up of two approximately parallel lines of islands, running north-east to south-west. Those on the western ridge, some ten in number, are of volcanic origin. Nearly all of these islands have steep rocky surfaces and high sea-cliffs, making landing difficult and yielding little land that is suitable for habitation or cultivation. From five to fifteen miles east of the volcanic ridge runs a line of coralline islands. These consist for the most part of atolls set among reefs, but the two largest islands, Tongatapu and Vava'u--which together comprise half the total land area of Tonga--are sloping limestone platforms. 'Eua and Niuatoputapu islands are another variation on the two main types, in that they are volcanic in origin with a limestone cover. They are the only Tongan islands 312 with natural running water. For the most part, the water supply on the other islands is provided by rainfall. During dry spells, recourse is made to the harsh but potable water available from wells dug through the limestone.

131 The coralline islands of Tonga form three clusters (see Map 2). The Tongatapu Group in the south consists of

[TEXT CONTINUED ON PAGE 37]

131 Tongatapu and 'Eua islands and a few smaller islets. The
131 Ha'apai Group consists of numerous small atolls. Fifteen of
162 161 these were inhabited at the time of the 1966 census. The
total area of the atolls of Ha'apai that were inhabited in
1966 is 20.1 square miles, with a population density of 521
131 per square mile. The Vava'u Group lies to the north-east
of Ha'apai. Like Tongatapu, it has a main island that gives
its name to the Group and a cluster of atolls nearby.

The distance between Nuku'alofa and Neiafu, the main
towns of Tongatapu and Vava'u, respectively, is 165 miles
(usually a matter of three days' journey on the government
132 passenger vessel). Within this distance the climate varies
from tropical in the northern islands to sub-tropical in the
south, with a mean annual rainfall of 86 inches in Vava'u
and 67 inches in Tongatapu (although with considerable
variation from one year to the next).

Yams, taro, sweet potato, manioc, breadfruit, bananas,
241 [184] plantains, coconuts and watermelons are grown throughout
Tonga, albeit in differing proportions in different parts
of the country. Except for breadfruit, these crops yield
all year round, and all but watermelons are important
241 subsistence crops. The principal cash crops are bananas,
433 coconuts and watermelons. Bananas and coconut products
[439] (copra and dessicated coconut) make up more than 90% of the
value of Tonga's exports. The nation's economy is based on

241 peasant production; the value of subsistence crops produced
433 for local sale is negligible.

Population

161 The population of Tonga at the census of 1966 was
[162] 77,429, of whom 98.31% were classified as Tongan (in contrast
to others such as Europeans, part-Europeans, and other
Pacific Islanders (Fiefia 1968: 7). The population total
reflects an annual rate of increase of 3.24% in the period
since the previous census, which was held in 1956, compared
with 2.94% during the preceding intercensal period, 1939-56.
[163] The difference is explained not so much by any great change
[165] in the birth rate as by a reduction in the death rate.
Table 1 shows population totals over a period of about fifty
years, beginning with the census of 1911, the earliest census
for which there are published figures available.

Population projections made by Norma McArthur, an Australian expert in Pacific demography, indicate an estimated population of more than 100,000 by 1975 and more than double the population of 1956 by 1980 (Kingdom of Tonga Economic Survey of Tonga 1970: Appendix A.1). These projections, based on the findings of the 1956 and 1966 censuses, assume the maintenance of age-specific fertility rates and continued slowly falling mortality rates, with no significant outmigration. McArthur's projections appear to be slightly on the high side, for her estimate was that the

[TEXT CONTINUED ON PAGE 40]

161 population in 1970 would be 87,406, whereas the Report for the Department of Justice for 1970 (1971: 3) indicated an estimated population of 86,005 at the end of 1970, based on the number of births and deaths registered during the year. However, in commenting on the results of the 1956 census, McArthur notes that "neither the birth nor death registration is very complete" (1968: 96) and that it is therefore necessary to make adjustments for under-registration. We must therefore await the report on the census held in December 1976 before we can properly gauge the accuracy of McArthur's projections.

161 Table 2 presents a comparison of the results of the
162 1956 and 1966 censuses, and shows the distribution of population among the inhabited islands. The results of these censuses indicate that there is no need to look far into the future to see that Tonga faces problems of population pressure. While the density of population was 211 per square mile in 1956, by 1966 this had risen to 288 per square mile. Moreover, these figures refer to the total land area of Tonga, including uninhabited and largely uninhabitable islands. Thus, a better statement of the reality of the situation is that the density of population on the inhabited islands was 324 persons per square mile, compared with 274 in 1956. Possibly the most significant datum to emerge from a comparison of the results of the 1956 and 1966 censuses is that, while the population as a whole

[TEXT CONTINUED ON PAGE 421

TABLE 2

Intercensal Changes in the Distribution of Population among Inhabited Islands

Island/Group	Area (sq. miles)	Percentage of total population		Intercensal increase in population	Density per square mile	
		1956 N=56,838	1966 N=77,429	%	1956	1966
Tongatapu Group (4 islands)	133.61	58.4	66.3	+ 54.6	248	384
Ha'apai Group (15 islands)	20.10	17.4	13.5	+ 5.5	493	521
Vava'u Group (13 islands)	46.03	22.0	17.5	+ 8.5	272	294
Northern islands excluding Niuafo'ou (2 islands)	7.62	2.2	1.8	+ 11.2	165	183
Niuafo'ou Island	13.41	NA	0.8	NA	NA	45
Tofua Island	18.05	NA	0.2	NA	NA	7
TOTAL	238.82	100.0	100.2	+ 36.2	274	324

Sources: Fiefia 1968: 38, Tupouniua 1958: 43.

161 increased by 36.2%, the increase was not uniform throughout
162 the islands. On the contrary, there was an absolute
decrease in population on nine islands, and only two islands
of more than one square mile in area had an increase in
population of more than 20% over the figure for 1956. These
are the islands of Tongatapu and 'Eua.

131 'Eua is a large island a few miles to the south-east
133 of Tongatapu. Because of intervening reefs, it can be
[505] reached only by a roundabout passage after a very rough
[313] sea-voyage of about five hours. The island rises in a
series of rocky terraces to about 1,000 feet above sea level,
with steep valleys that are the major source of timber in
Tonga, leaving relatively little land suitable for cultivation.
For these reasons, the island is not very attractive
161 for settlement. At the time of the census of 1939, the
162 population of 'Eua was only 480. After a volcanic eruption
166
[731] on the northernmost island of Niuafo'ou in 1946, many of
the people of that island were settled on 'Eua; at the
census of 1956, more than 40% of the population of 'Eua over
the age of nine had been born on Niuafo'ou. Besides this
Niuafo'ou influx, the increase in the population of 'Eua
is accounted for largely by migration from other islands,
161 especially by men seeking land. Even so, with an intercensal
162 population increase of 76.2%, the density of population on
'Eua in 1966 was only 100 per square mile, almost the lowest
[133] of any island in Tonga. Moreover, while there is still some

161 land available on 'Eua for settlement and cultivation, there
162 133 is no possibility that the island could support the kind of
density found on most of the other islands, owing to the
nature of the terrain.

161 As Table 2 indicates, the burden of intercensal
162 population increase and inter-island migration has fallen
166 mainly on the island of Tongatapu. Tongatapu has 40% of
[131] the land area of Tonga and 60% of the population. The
population of the island increased by more than 50% in the
161 ten years between 1956 and 1966. Much of this increase has
162 368 been concentrated in the urban area of Nuku'alofa, the
capital of Tonga. Thus, while the intercensal population
increase for Tonga as a whole was 36%, and the increase for
the rural areas of Tongatapu was 42%, the increase for the
Nuku'alofa urban area was 79%. This includes the one-time
village of Haveluloto, now virtually a suburb of Nuku'alofa,
which in 1956 had a population of 292 and in 1966 had a
population of 1,334.

161 In summary, there have been two kinds of population
162 flow in Tonga associated with the increase in population.
166 One kind of migration has involved settlement on islands
that have land available for cultivation (primarily the
island of 'Eua, but also some resettlement on Niuafo'ou
beginning in 1958). The second flow has been towards the
island of Tongatapu. On the remaining islands, the total
number of people has remained relatively constant, but

this is only because there has been considerable migration 161
from these islands. 162 166

It would seem, then, that insofar as there has been 161
pressure resulting from increased population, this has been 368
concentrated in the Nuku'alofa area. To that extent, the
problems of increased population in Tonga are mainly the
problems attendant on rapid urbanization. However, that is 166
not the full story, for the movement to Nuku'alofa is 423
largely related to the landless condition of many of those 162
who have migrated (Walsh 1969). According to the census 162
of 1966, 52% of all adult males (i.e., men aged twenty and 423
over) had no land to their names, whereas two-thirds of
the men living in the Nuku'alofa area were landless.
Unfortunately, there are no comparable statistics available
for 1956, as no question about land ownership was asked in
that census. There is no doubt, however, that landlessness
is a growing phenomenon, related to rising population. This [561]
can be seen , for example, in the figures on land-holding,
which shown an inverse relationship between landlessness and
and age (see Table 3).

The significance of increasing landlessness stems from 162
the fact that Tonga is largely a country of peasant 423
proprietors, of people engaged in agriculture for household 241
consumption and export who work on land that is under the
control of a member of the household. In the census of
1966, 70% of all Tongan men between the ages of twenty and

[TEXT CONTINUED ON PAGE 46]

TABLE 3

Agricultural Allotment Holders, by Age, 1966

162
423
561

Age group	Number in the age group	Allotment holders Number	Allotment holders Percentage
16 - 19	3,193	254	8.0
20 - 29	5,778	1,137	19.7
30 - 39	4,308	1,829	42.5
40 - 49	3,072	2,052	66.8
50 - 59	1,813	1,472	81.2
60 - 69	1,091	964	88.4
70 and over	636	564	88.7
Not stated	112	33	29.5
TOTAL	20,003	8,305	41.5

Source: Piefia 1968: 88.

sixty were classed as being engaged primarily in agriculture 162
for household consumption and export. This is a figure for 423
the total population, including men who reside in the towns. 241
As Walsh points out in a paper entitled "A Tongan Urban
Peasantry?",

> Town dwellers are inescapably bound up with the land. They own it as much as villagers, they rely on it to supplement wages kept low on the assumption of an additional income from agriculture, they value it as a means of fulfilling family obligations and as a measure of their social importance and they depend on it for food (1969: 93). [465]

The figures on external trade (quoted earlier) further 439
indicate the role of agriculture in the Tongan economy: 423
throughout the 1960s, bananas and coconut products made up
over 90% of the value of Tonga's exports. Furthermore,
there are no grounds for anticipating the development of
non-agricultural exports on any significant scale. In the 315
late 1960s, much hope was based on the possibility that explorations for oil would prove fruitful. This has not yet
materialized, however. And in trying to develop non- 439
agricultural industries, Tonga is in the difficult position
of having to compete with Fiji and Western Samoa, both of
which enjoy relatively large home markets and are also more
advantageously placed to export their goods.

In view of Tonga's dependence on agriculture both for 311
subsistence and export, the rising population figures are 161
cause for concern about increasing pressure on land as an 241
agricultural resource. A figure for 1963 gives the extent [134]

of land suitable for cultivation as amounting to 92,447 311
acres, approximately 60% of the total land area (Great 161
Britain 1965: 21), and it is unlikely that arable land can 241 [134]
be increased significantly. This means that higher yields
of subsistence crops are required from existing acreage if
the extent of land under cash crops is not to be reduced,
and geographers have already documented changing patterns
of land use and cultivation in Tonga (Maude 1970, 1973;
Thaman 1976).

The question arises whether there is a shortage of 423
land. 'Land shortage', however, is not something that can 121
directly and unequivocably be infered from figures on
population density. Rather, it implies a scarcity of land
to meet local needs given the available technology, and
varies with the definition given to 'scarcity' and 'local
needs' as well as being dependent upon practices of land
use and the level of technology. In the case of Tonga,
however, the definitional problem falls away, for there is
a readily available index of land shortage. According to 423
Tongan law, every Tongan male aged sixteen and over is [651]
liable for an annual poll-tax, and every poll-tax payer is
entitled to an allotment of agricultural land measuring
100 fathoms by 100 fathoms (approximately 8¼ acres).
Whether there is sufficient land to provide these allotments [162]
can be taken as a criterion of whether or not there is a
shortage of land, and by this criterion there is a definite

shortage. Thus, McArthur has written:

> The Tongan government is likely to be in difficulties before 1971 if every male aged 16 years or more pays his tax and claims his 8¼ acres of land because . . . there will not then be enough land in the whole Kingdom for much more than an average of 6½ acres per ⌊eligible⌋ male (1968: 97). 423 162

McArthur's figures refer to Tonga's total land area, not just to the land available for agricultural allotments. In terms of cultivable land, there was only enough for 4.6 acres per eligible male at the time of the census of 1966; the amount of land required exceeded the amount available by 79%.[1] It could be argued that only a man who is an adult and who is engaged in farming needs an agricultural allotment of his own. In that case, given the extent of [134] cultivable land (92,447 acres) and the number of men aged twenty or more enumerated in the census as being engaged primarily in farming for household consumption and export, in 1966 there was only enough land to provide each man with an allotment of just over 8 acres.

The statutory basis of the system of land tenure is 423 set out next. The operation of the system at the local [128] level--particularly the means of gaining access to land--are discussed in later chapters. The point emphasized here [162]

---

[1] In fact, according to the census of 1966, only 41.5% of all eligible males had an agricultural allotment (see Table 3). The apparent inconsistency between the figure [565] of 41.5% and the theoretical possibility of 56% is accounted for by the fact that there are landed chiefs who have holdings of considerably more than 8¼ acres.

is that landlessness in Tonga is a growing phenomenon. 423
Scarcity of land is not a recent factor in Tongan society.[2] 162
What is new about the present situation is the phenomenon [161]
of widespread and growing landlessness, and this phenomenon is directly associated with the rising growth of the population.

Historical Background to the System of Land Tenure

Given the facts of land tenure and people's dependence on agriculture, it is clear that the organization of access to and control over land is crucial for any discussion of contemporary social organization in Tonga. 423
Indeed, many features of the system of local organization are incomprehensible without reference to the system of land tenure and some understanding of how that system came into being. As Diaz and Potter stress in their essay on peasant society, "it is impossible to understand the social life of a peasant community without taking state policy and its history into account" (1967: 167).

The present system of land tenure in Tonga came into

---

[2] Since Tonga is a country of many small islands, it might be expected that land would be relatively scarce in some areas, and hence a valued resource. Even in 1882, when the present system of land tenure was introduced, land was comparatively scarce in Ha'apai and in the western part of Tongatapu (Maude 1971: 111).

> 121 Nuku'alofa and commute, as do secondary-school children,
> 621 and there is to-and-froing to shops and visiting.
> [872] (2) Motulahi forms a cluster with three other villages
> [873] . . . (total population: about 3,000). Among them
> they have one boys' secondary school, one intermediate
> school, and four primary schools. Children from one
> village attend the school run by a particular church
> [794] in another. Attendance at church and church membership also cuts across village affiliation.
> (3) The villages constitute an interesting political contrast, in that two of them are on government land and two on noble's land, one of which is at present headless because there is a vacant title with little probability of an heir.
>
> Possibly, this village will provide me with something of a cross section of Tongan society outside
> [184] of Nuku'alofa. . . . At the same time, I am aware that more remote villages (which are usually considerably smaller and, by definition, would be less technologically sophisticated and have less interaction with the capital) may be organized very differently. I cannot apprehend the significance of that at this time, and will therefore not concern myself with that problem until it becomes a real question that I could try to answer.

621 In one respect, at least, Motulahi is particularly unlike most other villages in that the population is very
162 much larger than that of most villages. According to the
621 census of 1966, Motulahi's population numbered 1,122, making it one of only eight villages in the whole of Tonga with a population of more than one thousand people. At the same time, half of all the villages in Tonga had a population under three hundred. However, the population of all these small villages accounted for less than one fifth of the total population of Tonga, and only one quarter of all the people living in villages. (Indeed, the aggregate population of villages that had more than seven hundred people was greater than that of all villages

that had fewer than three hundred people.) Furthermore, 162
the factor of size of population may be of only minor 621
significance. Admittedly, there is likely to be more 621
heterogeneity in large villages, simply as a function of
their having more people. However, accounts of villages
that have fewer than three hundred people suggest that
the structure of these villages and their relation to
other units of structure may be very similar to that of
Motulahi (Aoyagi 1966, Beaglehole 1941, Morton 1972). And
even in these small villages there may be considerably
diversity.

While Motulahi is not necessarily very different from 361
smaller villages, it may be significantly different from
villages that are remote from urban influences. While it [494]
is in no sense a suburb of Nuku'alofa, there is very easy
access to town via the many buses and trucks which ply the
main roads that run east and west on Tongatapu and converge
on Nuku'alofa. On the other hand, there is fairly easy
access to town from virtually all the villages on
Tongatapu (see Map 3). The same is largely true on the
island of Vava'u, although public transportation is less
well developed there. The contrast in this respect, therefore,
is with the isolated village-islands elsewhere in
Tonga. There is fairly easy small-boat sailing within the 361
island clusters in good weather, but the weather is not 505
always good. Larger vessels appear only at irregular and

[TEXT CONTINUED ON PAGE 61]

unpredictable intervals, leaving these islands isolated 361
for many weeks at a time and their people more independent [505]
of money and markets than people living on the bigger
islands. At the time of the census of 1966 there were [162]
27 islands that had a population of less than one thousand
people; these islands comprised just under 10% of the
total population of Tonga. Although I was not in a 361
position to investigate it, these village-islands may be 621
different in their political structure from villages that 184
are not isolated from urban centers and from other villages.
Certainly, the look of these village-islands reflects a [511]
simpler material standard of living than villages on
Tongatapu, and this is related to the fact that there is
less involvement in the cash economy. It should be noted, 621
however, that the village is probably not a significant 184
unit of variation with respect to the degree of conservativeness of the people living there, for--as we shall see
in later chapters--villages as such are not significant
units of organization. In this regard it is interesting 621
to note that Belshaw makes a similar point about villages 184
in Fiji: 171

> However important the village is in sentiment and ceremony, and however conservative Fijians may be with respect to the varieties of cultural expression reflected in villages, villages themselves are not the basis of social or economic variation. The notion that this village is progressive, whereas that is conservative, is too simple an explanation of differences in adjustment that may be evident (1964: 35).

621 land a-plenty to give out in Tongatapu, whereas the growth
622 of population was rapidly reducing the amount of land that
166 would be available in the future for new allotments in
161 Tungua. And, indeed, today there is a severe shortage of
162 land on Tungua, as there is on other islands in Ha'apai.
According to the census of 1966, the island of Tungua
had a population of 444 with a land area of less than three-
161 quarters of a square mile. The following is a report on
162 the land-holding situation on Tungua in January 1970,
423 written by a social anthropologist who conducted fieldwork
on Tungua in 1969-70:

> There are 90 bush allotments . . . on the island covering an area of some 240½ acres. They range in size from 1¼ to 8¼, only one being this last area . . . The average mean size is 2.6 acres . . . over one half are three acres or less. Preliminary figures on landholding reveal that there are 14 out of 57 (or 24.3%) households without registered land (that is, without legal title to land and therefore no security of tenure); in addition to the 14 heads of household without such title there are 33 sons over 18 in the same situation (Garth Rogers, personal communication).

621 In encouraging his people to move to Tongatapu, Sione
622 Patu also pointed out that with increasing modernization
166 and especially the drive for education, Tongatapu would
inevitably become the center for development and that people
would be well-advised to move to the main island ahead of
[873] the waves of migration that were bound to occur. Sione
[658] Fatu's foresight regarding national trends is also reflected
[425] in the fact that in the mid-'forties he made available about

46: Deckor Korn E-5 (1969-1970) 1978 OU9 Tonga OU9
Tongatapu
Motulahi

TABLE 4

Initial Residence in Motulahi of Resident Adults, by Age in 1970

621
622
166
162

	20-29 (N=176) %	30-49 (N=223) %	50+ (N=95) %	Total (N=494) %
Local-born or immigrant before age 20	66	53	28	53
Immigrant as an adult (age 20+)	34	47	72	47
	100	100	100	100

Source: fieldwork survey.

Note: Those born in Motulahi and those who came as children are not distinguished, since in many cases there is a temporary shift of residence at childbirth, and thus children may be born somewhere other than where they are raised. (See Chapter IV).

[844]
[591]

622 of 8¼ acres. In consequence, there had been land available
423 for these men's sons when they grew up, without the
659 necessity of requesting land from the noble. These allotments
425 were also registered, and thus Sione Fatu was
perceived as a generous noble who gave land freely to those
who needed it.

622 Sione Fatu died in 1962, leaving no children. He was
621 succeeded by his brother, Havea Veikune, who is the present
noble of Motulahi. In contrast to the growth of village
population during the period that Sione Fatu was the noble,
there has been little growth of village population since
162 the succession of Havea Veikune. In the report on the
161 national census of 1956, the population of Motulahi
621 numbered 1,093, compared with 1,122 in the census of 1966
and a total of 1,192 in my census of the village in 1970
(see Table 6). Thus, in the years between 1956 and 1970,
the population of Motulahi increased by less than 10%,
whereas the national population increased by 50% during the
same period. It should also be noted that if birth and
death rates were the same in Motulahi as they were in the
rest of the nation (and there is no reason to believe that
they were significantly different), then for the Motulahi
population figure to have remained fairly constant, there
must have been a net outflow of population from the village.

621 The people of Motulahi account for the standstill in
622 village population figures by contrasting the policies and
423

[TEXT CONTINUED ON PAGE 85]

TABLE 6

Comparison of Population Growth in Motulahi with the National Rate of Growth

161
162
621

Year of enumeration	Population enumerated in Motulahi	Percentage increase since the preceding enumeration Motulahi	National
1931	159		
1956	1,093	587	97
1966	1,122	3	36
1970	1,192	6	13

Sources: 1931 - Wood (1932).
1956 - Tupouniua (1958)
1966 - Fiefia (1968)
1970 - fieldwork survey; Report of the Department of Justice for 1970.

125 lived. Demographers commonly deal with these fluctuations
166 by arbitrarily fixing on a particular date and enumerating
the population present at that date. This suits their
purpose of enumeration, but it is an intolerably arbitrary
solution to the problem of ethnographic description (Colson
121 1954, Carroll 1975). In considering how to deal with this,
621 I realized that population flux is not a difficulty that
gets in the way of perceiving the demographic characteris-
tics of the village but, instead, is a vital element of
[128] proper description of local organization in Tonga. This
view is expanded and explored in the next chapter, in the
621 analysis of household composition. For the present purpose
125 of presenting a demographic profile of the village, I am
taking the population of Motulahi to be the sum of the
people who were enumerated in the course of the house-to-
house survey. People not living in a household at the time
it was surveyed are not included here; to include them
would inflate the population total and distort the age-sex
proportions, since young adults are more mobile residenti-
ally than other sectors of the population.

162 According to this enumeration, Motulahi had 1,192
621 inhabitants in the early part of 1970, of whom 617 were
male and 575 were female (see Table 7). A percentage
breakdown of village population according to ten-year age
categories indicates that more than half the population

[TEXT CONTINUED ON PAGE 92]

TABLE 7

161
162
621

Population of Motulahi 1970, Enumerated by Sex and Age and Compared with the National Population (1966)

Age Category	Motulahi				National
	Number			% (N=1192)	% (N=77,429)
	Males	Females	Total		
0-9	202	168	370	31.0	33.4
10-19	183	147	330	27.7	22.9
20-29	81	93	174	14.6	15.1
30-39	53	65	118	10.0	11.2
40-49	54	51	105	8.8	7.8
50-59	23	23	46	3.9	4.6
60-69	12	15	27	2.3	3.0
70-79	8	6	14	1.2	1.2
80-89	-	4	4	0.3	0.5
90+	1	2	3	0.3	0.1
Unknown	-	-	-	-	0.2
TOTAL	617	575	1192	100.1	100.0

Sources: fieldwork survey; Piefia 1968: 50-52.

162 621 was under the age of twenty and over 90% were under the
age of fifty. This is similar to the age distribution
within the national population at the time of the census
[164] of 1966. However, there was a higher percentage of persons
[871] in the 10-19 year-old group in Motulahi than in the nation
at large, and this might be accounted for by the fact that
it is fairly common for youngsters from the outer islands
to be sent to live with family on Tongatapu so that they
can attend the better schools on the main island.

The distinction between persons under or above the
age of twenty is significant because in speaking of Tongan
adults I refer to persons aged twenty and over. The
official report on the national census speaks of adults as
[871] persons aged fifteen and over (Fiefia 1968). This is
related to the fact that education is not compulsory beyond
the age of fourteen. However, my view is that it is not
productive to classify the fifteen-to-nineteen year-old
age-category as adult. The reason for this is that there
are certain important differences between 15-19 year-olds
and 20-24 year-olds, that are apparent not only at the
162 national level but also in Motulahi (see Table 8). Those
621 877 in the younger age-category, generally, are still students,
even though schooling is not compulsory for them, whereas
few persons over the age of nineteen are still in school.
[873] (Persons still in school after the age of nineteen are
[874] those who have stayed on in high school to prepare for

[TEXT CONTINUED ON PAGE 94]

TABLE 8

161
162
621
582
877

Significant Differences between 15-19 year olds and 20-24 year olds, Nationally and in Motulahi

Criterion	National census, 1966		Motulahi 1970			
	15-19 (N=7,825) %	20-24 (N=6,219) %	15-19 (N=147) No.	%	20-24 (N=103) No.	%
Persons who are still students	77.1	7.4	116	78.9	18	17.5
Married persons	4.1	33.0	2	1.4	33	32.0

Sources: Piefia 1968; fieldwork survey.

162 university-entrance exams, or are those attending the
621 Tongan Teachers' Training College.) On the other hand,
[877] as Table 9 indicates, very few Tongans are married before
[873] the age of twenty, though most are married by the time
[874] they are thirty (women usually in their early twenties and
[582] men a few years later).

162 Age at marriage among the population of Motulahi
621 parallels the national picture: all but two of those under
582 age twenty were never married. (In what follows in later chapters, these two are classed as adults for purposes of enumeration.) However, beyond determining who has never been married--which is a matter of fairly reliable public knowledge--describing the marital status of the population is difficult for the ethnographer. One can easily tell whether a man and woman are living together, but one cannot as readily know whether or not they are legally married. On the other hand, if a married couple is living apart--which they may be doing for a number of reasons (see next chapter)--one cannot rely on the veracity of what one is told about the status of the marriage.
[128] A detailed analysis of marital status, therefore, cannot
[592] be given. In the course of investigating household organization, however, I learned that it may be crucial whether or not there is a co-resident 'spouse', regardless
[592] of the legal status of the union. Accordingly, Table 10 differentiates among the adults of Motulahi according to

[TEXT CONTINUED ON PAGE 97]

TABLE 9

162
621
582

Marital Situation of People in Motulahi (1970), Compared with the National Population (1966)

	Age Category							
	15-19		20-29		30-49		50+	
	M	F	M	F	M	F	M	F
Motulahi								
Number in age category	79	68	81	93	107	115	44	50
Percentage who have never married	99	99	61	46	11	10	-	6
National								
Percentage who have never married	99	93	62	41	13	10	6	5

Sources: fieldwork survey; Piefia 1968.

TABLE 10

162
582
592
621

Marital-cum-Residential Status of Adults in Motulahi, 1970

Status	Age Categories					
	20-29		30-49		50+	
	No.	%	No.	%	No.	%
Living as a couple	60	34	172	77	68	72
Never married	92	52	23	10	3	3
Others	24	14	27	12	23	24
TOTAL	176	100	222	99	94	99

Source: fieldwork survey.

162 their 'marital'-residential status (i.e., whether they are
621 582 living in a couple relationship).

592 The difficulty of describing marital status is simple
162 compared to the problem of describing residential movement.
621 Tongans are as likely as not to have been raised somewhere
591 166 other than the village where they are born, are likely to have moved back and forth among different villages, and may speak of themselves as not really being of or from the village in which they have maintained residence for many years. It is therefore difficult to select ethnographically meaningful categories for differentiating among the people of Motulahi with regard to their places of origin or
[128] length of residence in Motulahi. As we see in the next chapter, the elements that make such enumeration difficult are best understood in the context of the organization of household composition.

Summary

621 Materials presented in this chapter show that the observed configuration of any one village reflects its geographical position and the influence of local personalities as well as the effects of supralocal and historical processes. This local configuration, in turn, constitutes much of the setting within which people who live in the
[128] village must operate. Elements of local organization and the local-level adaptations of the people of Motulahi are

592
621
162

TABLE 16

Household Status of Men in Motulahi 1970, Classed by Age and Marital Situation

Household status and marital situation	Age 20-29 (N=82) %	30-39 (N=53) %	40-49 (N=54) %	50+ (N=44) %	Total (N=233) %
Head of a household					
(a) Member of a married couple	16	49	85	73	50
(b) Not a member of a married couple	1	4	-	11	3
Not head of a household					
(a) Member of a married couple	21	19	7	6	14
(b) Not a member of a married couple	62	28	7	11	32
TOTAL	100	100	99	101	99

Source: fieldwork survey.

TABLE 17

Adherents of the Major Denominations, 1931-1966

162
795
797

Denomination	Percentage of total population			
	1931	1939	1956	1966
Free Wesleyan Church	58	53.9	49.6	49.9
Roman Catholic Church	12	13.6	14.7	16.0
Free Church of Tonga	16	17.1	17.5	14.3
Church of Tonga	10	10.5	9.9	9.0
Mormon Church	4	2.9	5.1	7.1
Seventh Day Adventist		0.8	1.5	1.8
Anglican Church		0.8	0.9	1.0
All other denominations	0	0.1	0.3	0.8
Denomination unknown	0	0.3	0.5	0.1
TOTAL	100	100.0	100.0	100.0

Sources: 1931 - Beaglehole (1941: 126)
1939 - Tupouniua (1958; 30-31)
1956 - Tupouniua (1958; 30-31)
1966 - Fiefia (1968; 23).

795 the Australian Wesleyan Conference, and the Free Church of Tonga and the Church of Tonga, both of which are indigenous organizations with no affiliations outside Tonga.

● 162 795 The national census figures showing the denominational distribution of the population can be somewhat misleading. There is no census breakdown of denominational affiliation among the people living in the different parts of the country, but the fact is that only the Free Wesleyan Church has a substantial proportion of adherents throughout Tonga; the other major denominations are unevenly distributed away from the main island. It is not possible for me even to begin to estimate what the distribution of denominational affiliation on the various islands might be, nor could an enumeration of the distribution in any one village be regarded as typical of the island. On the contrary, there may be considerable variation in statistical patterns of denominational affiliation between one village and the next. These variations reflect patterns of inter-village migration and random differences in fertility, as well as the effects of particular personalities and events. For example, the village of Pea on the island of Tongatapu was one of the early strongholds of Roman Catholicism and has remained a center of Catholicism to this day. Approximately half the population of this village are Roman Catholics, in contrast to the much

795 smaller proportion of Roman Catholics in the population as
162 a whole.

795 While the distribution of denominational affiliation
121 in any one village must be regarded as the outcome of factors that are best understood in historical perspective, a description of denominational affiliation in a single village should serve to indicate what is involved in being a congregant and will therefore illuminate what it is I am talking about when I speak of Tongans' absorption with matters relating to church membership. Moreover, despite statistical variation in the distribution of denominational affiliation from one village to another, this description will indicate the local-level features of denominational multiplicity.

162 The village of Motulahi exhibits the deversity of
621 denominational affiliation that is characteristic of Tonga.
795
794 The denominational affiliation of the adult population resident in Motulahi in the early part of 1970 is shown in Table 18. Each of the seven major denominations in Tonga had adherents in Motulahi. However, there can properly be said to be only five congregations in Motulahi (in the situation as it was in 1970), for the Anglican Church has only a single congregation on Tongatapu, based in Nuku'alofa, and the Seventh Day Adventists in Motulahi also belonged to a congregation based in Nuku'alofa (although occasionally

[TEXT CONTINUED ON PAGE 178]

TABLE 18

Denominational Affiliation of Adults Resident in Motulahi, 1970

162
621
795
794

Denomination	Number	Percentage
Free Wesleyan Church	226	45.7
Mormon Church	92	18.6
Roman Catholic Church	70	14.2
Free Church of Tonga	56	11.3
Church of Tonga	35	7.1
Seventh Day Adventists	10	2.0
Anglican Church	3	0.6
Denomination unknown	2	0.4
	494	99.9

Source: fieldwork survey.

162 they conduct services at the home of one of their members). 621 Even if the Anglicans and Seventh Day Adventists are set 795 794 aside, congregations are more correctly described as local groups rather than village groups. Each of the three Wesleyan denominations has its own church in Motulahi. (Indeed, the Free Wesleyan Church had two church sites, since for some years it had been in process of constructing a new building of brick to replace the existing delapidated wooden structure.) However, only the congregation of the Free Wesleyan Church could be said to be village-based in the sense that all members of the congregation are village residents, whereas not all the people who belong to the Motulahi-based congregations of the Free Church of Tonga and the Church of Tonga live in Motulahi. Some are residents of the small neighboring village of Tatafa, for their denominations do not have enough members to be able [872] to support a congregation in Tatafa. Similarly, the Roman Catholics of Motulahi, together with those from other nearby villages, attend church in Nukutau (the village immediately adjacent to Motulhai), where there is also a Roman Catholic primary school. The Mormons, too, have a joint congregation with neighboring villages; their church is located on the boundary between Motulahi and Nukutau. 162 This is also the site of the church-run post-primary school 621 794 that is attended by many children from the district. The
795
872

162 621 794 795 872 Free Wesleyan Church also adminsters a post-primary school for the district and a primary school as well. Both are located in Nukutau.

794 621 [626] Whatever the denomination, the local congregation is the major source and focus of public activity in village life. Everyone is at least nominally an adherent of some denomination, and there are few in the village who can withstand the pressure of the expectation that they should at the very least attend church once a week. The Roman Catholic Church has no regularly-scheduled activities for the congregation beyond daily church services and three services on Sundays. Each of the other four local congregations, however, has a scheduled round of weekly activities. In the Mormon Church, there are two Sunday services for the entire congregation (see Table 19). In addition to this, on Monday evenings there is a family service (which people attend in elementary-family groups), on Tuesday afternoons there is a service for women (aged sixteen and up), and on Wednesday afternoons there is a children's service (up to about sixteen years of age). Besides services, there are a number of other church-related activities. Every Tuesday afternoon and evening, members of the church who are able to do so are engaged in genealogical research (an activity related to certain doctrines of the Mormon Church). Twice a week there is a practice

121 feature characteristic of these societies is the optative and changeable nature of the composition of household groups.

Fluctuating patterns of household composition have received less attention than other features that are characteristic of Oceanic societies. Usually they are discussed within the context of studies of land-holding groups, and they have generally been treated either as a secondary aspect of ecological adaptation or as a by-product of the flexibility of social organization in these societies. Studies that focus on actual settlement patterns, however, are more actor-oriented than are studies of land-holding groups. This different focus directs attention to what I take to be a lack of conceptual clarity in the use of such terms as "option" and "choice" in discussing the diverse behavior of different people in a society. This problem emerges in the final section of the paper, where I consider the meaning of the data that are presented here.

VARIATIONS IN HOUSEHOLD STRUCTURE IN A TONGAN VILLAGE

101 Tonga, a country of about 150 islands, lies east of Fiji and south of
[131] Samoa. (It is also known as the "Friendly Islands"—a name given by
[175] Captain Cook, who visited Tonga in the course of his voyages of 1773-74
[162] and 1777.[1]) About 40 of the islands are inhabited, with a total
[161] population in 1970 of more than 80,000; three-fifths of the people live
[131] on the main island of Tongatapu. The total land area of the country is
about 256 square miles, two-fifths of which is Tongatapu.

361
162 Although there are only four centers of administration and commerce in which social differentiation is such that they can properly be called "towns," about one-third of the total population is clustered in these areas (two are on Tongatapu). The remaining population lives in villages that are dotted throughout the islands in a nuclear pattern of village settlement; this settlement pattern is largely the result of practices established during a period of civil war that lasted from 1797
[433] until the mid-1800's. Most of the people who live in the rural areas and many of those who live in the towns are wholly or partially dependent for their livelihoods on peasant agriculture.

592
[829] There is no consensus among Tongans on what composition constitutes the ideal household, but all adults would agree that the ideal household is one in which I, the speaker, am the head. Most Tongans would probably say that a household ordinarily comprises a single family unit consisting of a married couple and their unmarried children. Not all households conform to this pattern, however. In fact,

---

[177] [1] Tonga was first visited by Europeans in 1616, but sustained contact with Europeans did
[777] not begin until almost the end of the 18th century. Despite considerable European intervention since then, including the Christianization of the entire population before the end of the 19th
[418] century, Tonga has remained formally independent. In 1970, the Kingdom of Tonga joined the British Commonwealth of Nations.

47: Decktor Korn E-5 (1969-1970) 1975 OU9 Tonga OU9
Tongatapu
Motulahi

592 592 could help her work the land, the result may be a multiple-family-unit household based on the sister-sister link between family groups.

423 476 885 554 To be male or female head of a household of one's own carries with it recognition—one might almost say "attainment"—of adult status. Hence, for both the husband and the wife, being head of their own household, no matter how humble it might be, is more prestigious and infinitely preferable to being lesser members in someone else's household. 162 621 Thus, 74% of the men in Motulahi aged 30 and older are the heads of their own households, and 78% of all the men in the village who are married and living together with their wives are heads of household (see Table 8). Those men who are not heads of households

TABLE 8

Household Status of Men in the Village, According to Age and Marital Situation

162
592
621

Household Status and Marital Situation	Age				Total Percentage (N = 233)
	Percentage 20-29 (N = 82)	Percentage 30-39 (N = 53)	Percentage 40-49 (N = 54)	Percentage 50+ (N = 44)	
Head of household					
Member of a married couple	16	49	85	73	50
Not a member of a married couple	1	4	–	11	3
Not head of household					
Member of a married couple	21	19	7	6	14
Not a member of a married couple	62	28	7	11	32
Total percentage	100	100	99	101	99

592 tend to be those who are not married and hence lack the human capital necessary for maintaining a household, and/or are those who have not managed to acquire an agricultural allotment of their own—a reflection of increasing shortage of land over the past two or three decades. The differences among men of different age groups are largely accounted for by these two factors.

49: Rogers A-4,5 (no date) 1969 OU9 Tonga OU9

SOME COMMENTS ON THE "REPORT ON THE RESULTS OF THE 1966 CENSUS", KINGDOM OF TONGA, 1968⁽¹⁾

Garth Rogers

659 The 1966 census of Tonga was modelled in planning, method, analysis and presentation on its highly successful predecessor of 1956. The 1966 material is intended to be directly comparable with that presented a decade earlier, with the addition of data on land-holding. The census of 1956 was the first in Tonga to benefit from the methods and principles of scientific demography; the census officer M. U. Tupouniua, a graduate of Auckland University, acknowledged his gratitude to Dr Norma McArthur, experienced demographer of South Pacific societies and at that time Census Commissioner for Fiji.⁽²⁾ The 1966 Report was prepared by Sione Fiefia, a graduate of Hawai'i University; M.U. Tupouniua and Dr Zwart, Census Commissioner for the Fiji Government, were among the advisers and consultants. Much of the processing of census material was done in Fiji on an IBM contract; the total cost of the census was reduced by judicious accounting from the 1956 figure of sixpence per head of population to fourpence per head. The review which follows presents the statistical facts and a commentary on their social significance.⁽³⁾

161 162 The total enumerated population of the Kingdom on 30th November 1966, was 77,429 persons, 98.31% of whom described themselves as Tongans. This represents an increase of just over 36% (20,591) on the 1956 population (56,838), an average annual intercensal growth of over

---

1. Because similar articles have since been published in other Journals, the writer has asked for it to be made clear that this article was accepted for publication in January 1969 (Ed.).
2. TONGA 1958:iv, 2, 5.
3. I am indebted to Antony Hooper, Karl Tu'inukuafe, and Edgar Tu'inukuafe for valuable comments and criticisms on an earlier draft of this paper, and to Peter Chignell for a personal communication.

3% (possibly 3.46% in 1966). With one half of the population under 161
sixteen years of age and with 33.99% of both sexes in the reproductive 162
age-group (15–44), there is every possibility that present rates of increase will be maintained if not exceeded in the next intercensal period. On this evidence the total population would be well over 100,000 by 1976, and would double between 1966 and 1986.

The overall density of population on inhabited islands in 1956 was 161
almost 277 persons per square mile or 2.31 acres per person. By 1966 the comparable figure was 376.6 persons per square mile or 1.69 acres per person, an increase in overall density per square mile of nearly 100 persons.[4]

The largest increases took place on the principal island Tongatapu 161
where the intercensal growth amounted to 54%; the smallest increases
in overall density occurred in the Ha'apai group, already the most heavily 162
populated islands in Tonga, where the density rose from 480 persons per square mile in 1956 to 523 in 1966. In 1966 the most densely populated of the Ha'apai islands was Matuku where 138 people in 29 "single family units" in 19 households were living on 82 acres (1,062 per square mile).

* * *

The 1966 Report gives warning that overcrowding and shortage of [362]
housing are becoming acute throughout Tonga (p. 35) but the figures [166]
themselves suggest that this rise is a corollary of population movement to
Tongatapu. The figures do suggest that the overall average size of Tongan 161
households has risen from 6.53 persons to 6.7 persons in the intercensal 162
period.[5] But average household size in each of Tonga's three main towns 592
has fallen; Nuku'alofa from 8.04 to 7.96; Pangai, Ha'apai from 8.39 to 7.55; Neiafu, Vava'u from 7.6 to 7.42. On the other hand, in 1956 there were six towns and villages with an average of more than eight, and only one with over nine persons per dwelling whereas in 1966 there were nine villages with eight, and four with an average of over nine persons per dwelling. Most of these were in rural areas of Tongatapu which suggests that rising pressure on housing was more acute in rural Tongatapu than in Tonga overall.

Tongan households are defined in the census first as consumption units, later as sleeping units. Within an *api* 'compound' a sleeping unit and a consumption unit rarely correspond. Family units are defined as spouse(s) and child(ren). Of the 10,942 Tongan households recorded for the entire Kingdom in 1966, 16% or 1,729 contained more than one family unit; 1,454 or 13.2% contained two family units; 244 or 2.2% had three family units; 31 or 0.28% had four or more. Tongatapu Island with 61.8% of the

---

[4] Thirty-three out of c. 150 islands are inhabited; the total habited land area in 1966 [162]
was less than 15 miles square. Niuafo'ou (13.5 sq. mls.) and Tofua (18.05 sq. mls.), both partially resettled since 1956, have not been included in the assessment of population density, nor have the unhabited islands of Late, Kao, Hunga Ha'apai, Hunga Tonga, 'Ata and Fonualei, all high and fertile but without harbours or anchorages.

[5] Comparable figures of mean household size in other island groups are. Cook Island 1966, 6.5; Western Samoa 1961, 5.7; Fakaofo, Tokelau Islands 1968, 10.4 (Personal Communication, Antony Hooper); Niuafo'ou, northernmost island of Tonga 1967, 6.5.

161 Kingdom's total population, had 58.9% of the total households with two
family units and 63.2% of the households with three or more family units.

162 The Report does not distinguish whether households with several
592 families have come about as a result of grandparents, son and wife, and grandchildren living in the same household, or as a result of brothers and their wives sharing one household. It is also unclear how the local census officers demarcated dwelling units clustered together and cooperating as the one single household. In many parts of Tonga there is a precedent in custom for three or even four generations of the same kin-group to live within the same *'api*, the family unit of the oldest son occupying the main dwelling with other units (parents and unmarried siblings; families of
[593] married siblings) having separate dwellings around. Because of the traditional brother-sister *tapu* there may be an additional hut for unmarried sons. There is less precedent in Tongan custom for two or more family units of the same generation (e.g. siblings, their spouses and children) to live within the one dwelling: this could be a criterion of overcrowding.

It seems from the census figure of 16% ("households" with more than one family unit) that overcrowding is not yet severe in Tonga except in
[362] Nuku'alofa. Here families of siblings are sharing dwellings, and huts are being built on swamp land. Elsewhere, the occurrence of households containing more than one family unit may be accounted for as the persistence of the traditional co-resident extended family, comprising several generations where each "extra" family unit may have its own separate dwelling house which may or may not have been recorded in the census schedule as a household. The increase in average household size has been accompanied by a fall in average overall acreage of land per household from 15.08 acres per household in 1956, to 10.98 acres in 1966.

* * *

121 The population densities already discussed have little meaning except in relation to the availability and utilization of natural, agricultural and
13 human resources. The natural resources of Tonga comprise almost
311 exclusively the soils, reefs and surrounding seas with, in late 1968, an elusive possibility of oil; the agricultural resources comprise almost entirely trees—particularly coconut, banana, breadfruit—and ground crops grown mainly without mechanical aids by slash-and-burn methods.
128 Human resources are discussed at the end of this paper.

Dependence on agricultural produce is enormous; in 1961 and 1964
433 these products amounted to 98.19% and 96.39% respectively of Tonga's
[939] total export earnings with copra (the dried kernel of the coconut) forming the basis of the economy and constituting over 80% of the visible exports
[241] throughout the 1960s.(6) Agricultural products are the surpluses and small cash-crops of Tonga's 12,000 or so peasant farmers who are scat-
[463] tered throughout the Kingdom and rent their allotments either from titled
[427] nobles or directly from the Government.

---

6. Tonga, 1960–1967 *passim*. Total exports for 1961 amounted to £T1,374,658; agricultural exports £T1,349,461; non-agricultural exports £T25,197.

GARTH ROGERS

Systematic development of agricultural resources was the prime concern 654 of Tonga's first development plan (1965–1970), the main effort and spending being allocated to a comprehensive Coconut Replanting Scheme. Banana exports to New Zealand and Japan have fluctuated although 439 they have gradually increased throughout the 1960s. But other agricultural exports—such as watermelons, fungus, groundnuts, pineapples, vegetables and ginger—comprise only a very small fraction of the total exports. Other crops are either completely absorbed by home consumption or are, 433 as yet, only in an experimental stage.

A fishing industry has been established in Nuku'alofa with the aid of 228 Japanese experts but in 1968 it was barely supplying the home market. Local private fishermen would sell a string of small fresh fish, in all about three to four pounds, for about fifty *seniti* (NZ50c). Fish was sold in the 655 government market at intervals of about two weeks but the supply rarely 443 lasted more than one day. Tuna and shark caught by the government vessel were refrigerated in the government market and sold for ten and four *seniti* per pound respectively. Labourers' wages at that time in Nuku'alofa were one *pa'anga* (100 *seniti*) per day. By early 1969 small [439] shipments of crayfish tails were being transhipped to the United States via Fiji by an Australian fisherman who owned his own craft but employed local Ha'apai labour.

* * *

A very high proportion (75.57% or 57,526) of the total Tongan population 162 was classified in the 1966 census as "economically inactive", that is, 464 as persons not engaged in any form of "industry" ranging from subsistence agriculture to public service. Included in this category were 16,308 or 81.3% of all adult Tongan women who were engaged in "home duties", all children under fifteen years of age, and all who were students over fifteen years or retired. It should be understood, however, that women 462 perform some important economic tasks such as assistance with food- 162 gathering and copra-making. Moreover, according to the traditional division of labour in Tonga, women make mats, baskets and bark-cloth as part of their "home duties". Nevertheless, only 1,013 or 5.0% of adult Tongan women were engaged in activities other than these.(7) No Tongan women were listed as employed in "government and administration" (excluding government clerks); 607 or 3.02% of all adult Tongan women (compared with 1,715 Tongan males) were listed as employed in "services" (religious, educational, medical, personal; not transport); 173 or 0.86% (compared with 180 Tongan males) in "commerce"; and only 18 or 0.089% (compared with 579 Tongan males) in "part-manufacturing and processing" industries.(8) In Tonga, the traditional idea and practice that [562] man is the provider and head of the household still persists.

---

7. TONGA, 1968: Table 12b, 72–74.
8. In 1961, 9.5% of all adult Western Samoan women were classified as "economically [171] active" (excluding "village agriculture"); 7.9% of all adult women, mainly the 15–29 age-group, were engaged in "industry" of one sort or another. The 1966 Cook Island census (pp. 5, 55) lists 1,620 adult Cook Island women or 35.4% of all adult females as "economically active" of whom 1,032 resided in Rarotonga. Cook Island women engaged in manufacturing numbered 301 (compared with

REPORT ON THE RESULTS OF THE 1966 CENSUS

162 462 Of the 20,766 Tongan males over fifteen, 17,686 or 85.17% were listed as being employed in some "industry". 13,219 or 74.74% of these were recorded as being self-employed in "agricultural production for household consumption and export". This represents a rise over ten years of 3,483 persons or 35.77% in this category, but unfortunately the category includes all those without regular or specific occupation, that is, no attempt was made in the 1966 census to differentiate self-employed from unemployed, nor those with title to land from those who have no title but are growing subsistence crops on someone else's land; it is difficult therefore to quantify pressures on land and the '*api* system.

* * *

421 423 671 The Tonga land tenure system is unique in Polynesia and is the result of laws enacted over a hundred years ago by the founder of modern Tonga, King George Tupou I. Every male Tongan is entitled, on reaching the age of sixteen years, to receive a grant of eight and a quarter acres as an '*api tukuhau* 'tax allotment', and a grant of up to one rood twenty-four perches in a village or town as an '*api kolo* 'town allotment'. No one may legally hold more than one tax and one village allotment, but if a person forgoes the latter he may obtain under the law, a bush lot of up to twelve and three-eighths acres, that is, one and a half times the usual [651 428] size of an '*api tukuhau.* The annual tax on tax and village allotments together is eighty *seniti* (NZ80c); tenure is for life and is usually reallocated to the eldest son.[9] These laws have created a nation of small but secure [592 511] tenant farmers alongside a landed aristocracy. The head of every family or household in Tonga, irrespective of his rank or wealth, has thus until very recently been assured of the means of production both of basic necessities such as food and housing, and of cash crops both for purchasing clothing, tools, household goods, and for education. With shortage of land, and the strain traditional housing puts on coconut trees, housing is passing from subsistence to the monetary economy.

162 423 According to the Report of the Lands and Survey Department for 1966 (p. 2), the total number of tax allotment holders in December of that year was 12,517. The 1966 census records that only 8,305 or 41.57% of all Tongan males over sixteen said that they were holding tax allotments, whilst 11,553 or 57.84% reported that they held no land (p. 96). Some 116 men over sixteen did not state their position regarding land but even if they all had held tax allotments, 4,096 of the allotment-holders recorded in the Report of the Lands and Survey Department would remain un- [589 428] accounted for. However, some of the Lands and Survey allotment-holders would undoubtedly be widows holding their husband's allotments as a life interest,[10] or the sole surviving daughters of the deceased land holder.[11] The number of widows recorded in the 1966 census was 1,552 but it is not stated how many of them were holding the lands of their

---

301 males), in services 539 (compared with 737 males), professional, technical and related workers 321 (compared with 412 males).

[9] TONGA, 1948:405–459. "The Land Act". Annual poll tax, $T3.20, is paid by all adult Tongan males, whether landholders or not.

[10] TONGA 1948:427–8.

[11] TONGA 1948:428.

deceased husbands. As the law prohibits any person from holding two 162
or more tax allotments, either a very high proportion (32.78%) of tax 423
allotment holders must be women, or the census returns have not revealed
the way land is allotted.

Whatever interpretation is cast on allotment holdings and holders the
fact remains that at least one half of all Tongan men over sixteen stated
that they held no tax allotment. According to Tongan ideology these
men are landless, "*ta‘ema‘u ‘api tukuhau*", even though they may have
access to land for food production. As expected the greatest number of
"landless" men fell within the lower age-groups but it is remarkable that
so many men in the middle age-groups were without tax allotments.
83.5% of all men between fifteen and twenty-nine years of age and 51.7%
of those between thirty and forty-four stated that they held no land. One [494]
fifth of these "landless" men were living in Nuku‘alofa but the greatest
majority were in rural areas of Tongatapu where there is public transport
to Nuku‘alofa. For example, in nearly all of the rural villages of Tongatapu
(44 out of a total of 53), more than 50% of the males eligible for land
stated that they had no land. In the Ha‘apai islands, on the other hand,
in only eight out of twenty-two rural villages were there more than 50%
of all adult males without tax allotments.

The Census Officer for 1966 wrote that ". . . even if the larger tax-‘*apis* are further subdivided into four-acre allotments, there would still be not enough land for all male taxpayers. This simply means that the number of landless males will continue to increase yearly" (p. 31). There are, however, some unhabited high islands (see footnote 3) and an (unpublished) amount of land held by Tongan nobles which is either not made available as tax allotments or is farmed by commoners resident on noble estates who have not been granted registered title to the land.

What then are the prospects for these "landless" males? Firstly, according to the custom of the land they should all have access to land belonging either to a kinsman or to a noble. These rights of usufruct are in most cases for the growing of subsistence crops only and not for cash crops, and the traditional right is becoming a privilege which is paid for. Since it is becoming more difficult for even rural dwellers to do without money, as modern manners create new "necessities", it is likely that "landless" men and their families will not share the same standards of living as those with registered land. It is noteworthy that if the eight-acre allotments were divided in half (as has already happened in parts of the Ha‘apai and Tongatapu islands), there would be a corresponding lowering of cash income and consequently of standard of living of the new occupants, as well as the possibility, under current methods of cultivation, of soil exhaustion and erosion.

Secondly, there may be a case in Tonga for the development of co- 000
operative land-holding groups centred on the village, with household
units working land within the cooperative. Specialized crop production,
mechanization, fertilization, and fencing could all be developed within
the cooperative, but each household unit could retain its own ‘*api* lands
for subsistence cropping and household requirements. Such a scheme

000 would be more likely to succeed on government than on noble estates,
245 and only, of course, in areas where land is available for lease. There is
474 evidence in Tongatapu that some banana-producing cooperatives have
achieved success by using vacant land and employing tractors.

166 A third alternative for landless men is migration, and the 1966 census shows in a number of ways that "... the Tongan population has become mobile, both internally and externally ... the drift of young people from the atolls of Ha'apai especially and rural areas of Tongatapu to Nuku'alofa is probably indicative of this trend" (p. 11).

Tonga now has thirteen towns and villages each with a population of
361 more than one thousand people; nine of these are situated on Tongatapu
island whereas the Ha'apai and Vava'u groups contain only two each.
361 These thirteen towns and villages showed a combined percentage increase
161 of population of 48.3% during the intercensal period, although the two
369 Ha'apai towns combined actually lost population over this period.
Population growth in the nine Tongatapu towns and villages ranged from 34.0% to nearly 357.0% (Haveluloto) for the decade from 1956; Nuku'alofa and suburbs (historically three villages) increased over the same period by 6,483 persons (by 70.0%) to a total of 15,685.

Nearly 32.0% of all persons over sixteen living in Tongatapu on the
162 night of the census were born in other parts of the Kingdom, with 14.4%
361 deriving from Ha'apai and 11.4% from the Vava'u group. Some of these
166 people living away from the place where they were born were undoubtedly
students and temporary residents from the northern islands, but differential rates of increase for Tongatapu (53.2% during the intercensal period) and the Ha'apai group (6.78%) suggest that there is a higher rate of internal migration than could be explained simply by students and visitors. Walsh has described the process whereby temporary immigrants become permanent residents.(12)

Some imbalance between the sexes is apparent in Tongatapu's excess of males "born elsewhere" over females "born elsewhere". Supporting the argument that many of Tongatapu's immigrants derive from Ha'apai, is the evidence that there is a shortage of males in that group; there are only 491 males per 1,000 persons in the Ha'apai district—the only deviation from the national pattern of male predominance.

* * *

The average age for marriage has increased since 1956 when over 3.0%
582 of all men and over 9.0% of all women were married in the fifteen to
nineteen age-group. The 1966 returns indicate that only about 1.0% of the total male population and just over 7.0% of the total female population in this cohort were married. It is possible that some of the reasons for this delay in marriage are the shortage of land in rural areas, the excess of men in urban areas, the increasing cost of traditional weddings, the shortage of and desire for wage employment and money, and the enormous advantage post-primary education gives to obtaining wage employment.

---

12. Walsh 1967:14.

Further evidence that Tongan attitudes to marriage are changing is 582 suggested by the proportion of husbands to wives. The 1956 census asked 162 people if they were married, never married, widowed, or divorced. *De facto* spouses living together were treated as married, "the aim of the census being to record things as they are and not as they should be";(13) the total number of recorded husbands exceeded the number of wives by 317. The same questions concerning marital status put in 1966 returned a remarkable reversal; there was, despite a steady ratio of males to females, a surplus of 307 wives over husbands.

These figures may be explained in several ways. The census figures may be in error because of the question being misunderstood or because of the informant concealing his or her *de jure* as against *de facto* marital status from the often strange census enumerator (teachers): this would require some widowed or unmarried mothers to have been included in the 1966 but not in the 1956 returns as "married" persons and/or some widowers or *de facto* husbands to have been included as "married" in the 1956 but not in the 1966 returns. A second possibility is that the number of married men overseas (in Australia, Hawai'i, United States, New Zealand, New Hebrides, United Kingdom) has greatly increased. Lastly, there is a case here for serial monogamy, that is, contraction of [587] second marriages without legally divorcing the first spouse, especially in [586] a country where legal divorce is uncommon(14) because of its expense(15) and the fact that it is not traditional custom.

* * *

As already mentioned it is not possible to quantify unemployment or 464 underemployment in Tonga from the data of the 1966 census; what is apparent, however, is that Tonga is industrialising very slowly—considerably slower than is necessary to absorb projected increases in the size of the work-force. It has been estimated in the Report (p. 30) that over [162] 11,000 young men will pass the age of fourteen during the decade beginning 1966, but only 1,444 men will pass the age of sixty-four over the same period. It is likely, therefore, that apart from deaths and migration, the size of Tonga's male work-force will increase by about 9,700 in ten years. Taking into account the land shortage discussed above, where are these young men going to find employment?

There was no industry of any importance in Tonga before 1940, but the 655 Tonga Government took control of copra production and marketing in 1942 after Lever Brothers made the mistake of selling out on a rock-bottom market. This state enterprise has produced economic independence for Tonga through the policy of gradual industrial development by government agencies without outside financial assistance.(16) Since 1956, there [471] have been state-owned developments in shipping, fishing and manufacturing (desiccated coconut, coir-processing, soap, concrete blocks,

---

13. Tonga 1958:23.
14. There were only 405 divorces recorded on census day, representing only 1.77% of the 23,317 people who declared themselves married.
15. Legal costs for divorce proceedings may range from twenty to several hundred *pa'anga*, and the cost of maintenance has also recently risen.
16. Tupouniua 1960:405-508.

49: Rogers A-4,5 (no date) 1969 OU9 Tonga OU9

655 hard-board, cabinet-making, ship's gear and housing), as well as developments in private industries such as cigarette and tobacco processing, 471 handicrafts, tailoring, boat-building, bread-making, and in government service industries, communications, electricity and water supplies and 457 mechanical engineering. Until 1956, Tonga maintained a favourable overseas trade balance without incurring a national debt. Since 1965, 464 moneys have been borrowed from Britain for development plans. But these developments are not sufficient to employ the increasing numbers of young men migrating to Nuku'alofa seeking work. For example, in 1956, 2.41% of the Tongan male population over fifteen years was engaged in "part-manufacturing and processing"; by 1966 this percentage had rised to 2.78% of the adult Tongan males, an increase of some 192 persons, but Tongan females employed in this category decreased over the same period by some 77 persons, that is, in the decade following 1956 the total number of Tongans employed in "part-manufacturing and processing" industries rose by only 115 to 597 persons. The "services" branch of the economy absorbed an increase of 568 Tongans, "transport and communications" 65, whereas Tongans employed in "commerce" dropped from 786 to 353, a loss of 214 workers. The number of non-agricultural labourers rose during this period from 192 to 786—a gain of 594 workers. [563] Comparable figures for non-Tongan residents in Tonga in 1956 and 1966, show decreases in the number of persons employed in "part-manufacturing and processing" industries (a decrease of 83 persons), "services" (down 63 persons), "transport and communications" (down 24 persons) and "commerce" (down 103 persons). These figures conform with the Tonga Government policy of gradually replacing non-Tongan workers with Tongans.

SUMMARY AND CONCLUSIONS

161 Rapid increases in the Tongan component of the population are 162 occurring: about 38% in ten years; this is producing a very youthful population in which over half of the population is under sixteen years of [163] age. Population expansion is due not to a rising birth rate (which is fairly constant at 3.24%) but to a rapidly decreasing death rate (in 1966 [165] the death rate reached an all time low of 0.29%).

423 Pressures on land are beginning to be felt but are not yet acute because it is comparatively easy for any Tongan to obtain access to land for subsistence purposes. Pressure on the '*api* system as it now stands is very great with possibly well over half of the men eligible for land without 311 land or at least without security of tenure. Possibilities for intensification of land use have scarcely been sought; diversification of crops and scientific methods are, with the exception of the Coconut Replanting Scheme, as yet confined to research stations; large tracts of land belonging to the nobility remain officially unallotted; several high islands are unsettled; larger allotments could be subdivided with the introduction of intensive 362 methods. Pressure on housing is not yet acute except in Nuku'alofa, but 592 the Tongan administration seems to have adopted a European norm of one "family unit" to one household in spite of the traditional custom of

III. THE TONGAN FAMILY ESTATE

The dispersion of kin groups from native villages and islands in modern 612
Tonga and the consequent formation of family estates are largely a
result of the growth of population, the scarcity of undistributed land, 166
and the individualistic land tenure system. There were no complete sets
of adult siblings resident in 'Uiha; every adult individual had siblings
and other members of his *kāinga* who were in long-term residence
elsewhere.[5] It is difficult to distinguish permanent from temporary
long-term absences, since many individuals who plan only temporary
migration remain absent permanently. In addition, degree of dispersion
of kin groups varies considerably from *kāinga* to *kāinga* in Tonga, and 612
for any particular village community, the relative degree of dispersion 166
of a village's component kin groups has a great deal to do with the 621
presence of 'dominant' or economically powerful commoner families
within a particular locality. Unless adult male siblings with families of
procreation can find some local employment outside agriculture such

---

[5] The alternative models of social structure developed here are intended to be
society-wide in scope. However, their range of application may appear to be 612
more limited since my field data are biased by the fact that I worked in an 166
area of Tonga, Ha'apai, where the rate of migration (and thus the degree
of kin dispersion) is highest. Yet, I feel that such a bias does not in fact 128
detract from the societal significance of my interpretive scheme, since the
geographical mobility of Tongans in general is well-established by other writers
(see especially, MacArthur, 1967; and Walsh, 1970), and from the few contacts that I had with kin groups in other parts of Tonga, I was impressed
with the similar, mobile and dispersed nature of kin sets. The examples
presented here, then, are not unrepresentative of what is happening in other
Tongan communities. The following table, abstracted from the *1966 Census*,
provides one specific useful, but crude index of population dispersion. No 612
account of Tongans overseas is available (*1966 Census*, Table 10A, pp. 63-68): 166
162

		Tongatapu M/F	Ha'apai M/F	Vava'u M/F	Other Islands M/F
Tongatap	M	18,719	389	428	604
	F	17,414	452	466	405
Vava'u	M	2,212	225	5,088	158
	F	1,902	251	5,730	157
Ha'apai	M	2,455	4,513	280	222
	F	2,276	4,577	299	92
Other Islands	M	775	54	117	2,003
	F	853	74	125	1,748

Table a: Tongan Population Classified by District of Birth In Conjunction With District of Census Enumeration and By Sex (Totals Cover All Ages).

245 in the open plantane fields. The bread fruit and Cocoa nut trees are
[417] interspers'd with little order though chiefly near their habitations,
and the other parts of the island, especially towards the sea and about
[244] the sides of the lake are coverd with trees and bushes of a most
luxuriant growth, the last place having a great many mangroves &
the first a vast number of the Fait'anoo trees already mentioned.
133 There seems to be no rock or stones of any kind about the island that
is not coral, except in one place to the right of the sandy beach which
is the highest part of it, where there is a rock twenty or thirty feet
high of a calcareous stone of a yellowish colour and a very close hard
texture, but even about this place are large pieces of the same coral
rock that composes the shore.

648 We liv'd on the most friendly terms with the natives while we
remain'd here, and obtain'd a much larger supply of refreshment
609 than could have been expected from so small a place, but it should be
[439] consider'd that all the small islands around it furnish'd their Quota,
[342] and the strangers that brought their hogs and other things were
obligʼd to live in temporary huts which they erected or lay them-
[136] selves down behind bushes or ferns. Besides walking frequently in the
country, which we were permitted to do without any interruption,
we sometimes amus'd ourselves in shooting wild ducks not unlike the
Widgeon[1] which are very numerous upon the salt lake and the other
648 pool. In these excursions we found the people had often deserted their
houses to come down to the trading place without entertaining any
609 suspicion that strangers rambling about would take away or destroy
439 any thing about them, but though in these cases it might be suppos'd
161 a great part of the inhabitants were sometimes collected at the beach
162 it was impossible to form any true computation of their numbers, as
the continual resort of strangers from other places mixing with them
might easily mislead one. However as there was never to appearance
above a thousand seen at one time it would perhaps be sufficient to
allow double that number for the whole island.

114 We steerd about NNW towards Káô and Toofôá in our way to
Hapaee,[2] an island which Fee'nou said was of a considerable extent,
634 where we could be supply'd plentifully with every refreshment in the
easiest manner. He engag'd to go to this place with us himself and
[648] seem'd to have some interest in it, for he express'd a good deal of
aversion to the Captains intention of going to Amsterdam which he
133 mention'd to him. Although they made us understand that Hapaee
lay rather to the NE of Anna'mooka, we were obligd to take this route
114 because there is a cluster of islands lying between Annamooka &

---

[1] *Anas superciliosa.*

[2] Ha'apai.

A [Nomuka--Analyst]

[1777]

133 whole might supply the imagination with an idea of some fairy land
[131] realiz'd. It would appear that some of these places may be form'd after
the manner we have suppos'd of Palmerstons Island, as there is one
which as yet is entirely sand and another that has only one bush or
tree. Indeed the appearance of Annamooka in general argues also
such a mode of formation, did not its height perswade us that the sea
has either made a very sudden recess or that it has begun to do so at a
period so remote as scarcely to coincide with the date of the Creation.

114 At five in the evening we had reach'd Kotoo the most Nºwesterly
of the low islands, a little beyond which is a shoal or reef on which the
133 sea breaks all around. On passing it we were about two leagues from
Toofóá, the smoke of which we had seen several times in the day
131 though it had now almost ceas'd. This island is about ten leagues NNW
● 162 from Anna'mooka and though according to the natives but thinly
312 inhabited has good water. They call the Volcano upon it Kolloo'feea[1]
and say it is an O'tooa or divinity, about which they seem to have
133 some superstitious notions. They say it sometimes throws up very
823 large stones and compare the Crater to the size of a small islet, which
103 has never ceas'd smoaking in their memory nor have they any
tradition that it ever did. We now hauld our wind and stood ESE
776 towards the islands already mention'd which form here almost a
semicircle. At six were about two miles from the shore of one of the
114 largest calld Ma'toogoo,[2] when we sounded and had ground with 55
fathom a fine black sandy bottom, and soon after nearly the same
water with a coarser white sand. We then tack'd and stood back
having for half an hour between 50 and 60 fathom, when we brought
to with the main-topsail to the mast for some time & afterwards stood
[136] on to the westward. A great many Egg birds and flying fish were seen
in the passage to day, and it was observ'd that after sailing in the
morning a tide or current from the westward set us much over
towards the islands on the right.

132 THURSDAY 15th. *Therm.* 72½:73:74½:77:75:74½. Light airs of wind
from the Sºward and frequently quite calm with very fine weather.
114 The sea perfectly smooth. Between twelve and one in the morning we
tack'd and stood eastward keeping close haul'd to pass to the South-
[133] ward of Fotoohàà which is the Island next Kàò. At day light were
not far from the last place, which is a vast rock of a conic figure with
[103] marks on its sides as if made by torrents rushing down. After passing

---

[1] The name of the volcano is Lofia. *Ko* is the nominative article. Lofia seems also to have been the name of the '*otua* or god who dwelt within the crater, throwing up fire and smoke and stones.

[2] Matuku.

SUNDAY 18th. The wind E . Moderate breezes with good weather. 114
The Gunner was employ'd to trade on shore and purchas'd a good
many hogs, plantanes &c but the greatest supply we had was a 439
present which Fee'nou made the Captain of a vast quantity of Yams,
Plantanes, Sugar cane &c and two hogs, which was shar'd between [634]
the two ships. Amongst other things we purchas'd yesterday a fine [431]
green Turtle of above 300 Lib., & to day the decks were so crowded [648]
with the natives who came to barter or were incited by curiosity that
it was almost impossible to stir. [609]

MONDAY 19th. The wind Easterly. Gentle breezes with fine weather. [132]
We continued to barter with the natives on shore as yesterday and a
great number were on board.

As we wanted to obtain some knowledge of the country some of us 609
mention'd it to Fee'nou, who sent a person as a guide and to protect
us from any insult from the natives. We travers'd nearly the whole 114
island of Lai'fooga and found it in several respects superior to Annamooka.
The plantations were both more numerous and extensive and 311
we found large spots well planted with the Morus papyrifera (paper
Mulberry),[1] but in many places towards the sea, especially on the east
side, the country is still waste owing perhaps to the sandy soil, as it is
much lower than Annamooka or its surrounding isles. Towards the [134]
middle of the island the soil is better and much better inhabited than
the other parts, for we met here with very large plantations, fenc'd in [162]
in such a manner that the fences running parallel to each other form'd [241]
fine spacious roads that would appear an ornament in the most [417]
civilizd countrys. It however labours under the inconvenience of [487]
having no good water that we could see, for though we found several
ponds the water was either very brackish or stinking, and in some 312
large holes in the coral rock which is seldom above two or three feet
from the surface it was no better than common sea water. At one 223
place we saw an artificial mount rais'd to a considerable height with
an arbour of low trees neatly contriv'd, under which our guide made 349
us understand people sate to catch pigeons.[2] At another place was a
house four or five times as large as the common sort with a large area 344
of grass before it which seem'd a place for the people to resort 764
publickly to;[3] and near the landing place we saw one of their burying 349
grounds, which was a mount two or three feet high coverd with
gravel and had four or five small huts on it, in which they said the
bodys of some of their principle people were interr'd.[4] Most of the 000

---

[1] *Broussonetia papyrifera*, Tongan Hiapo.

[2] One of the mounds called *sialupe*.

[3] Tongan *mala'e*.

[4] A *fa'itoka*.

114 water, and we had an oppurtunity time enough to warn our consort
of the danger by firing three swivels.

In the fore noon we attempted to work up towards Hafaiva (which
is the largest isle hereabouts) between Pootoo poo'tooa & a shoal that
lyes NE from Kotoo, but making little progress and the same weather
being likely to continue, we came to an anchor at noon in fifty
fathom a coarse sandy bottom about a mile WbN from Pootoo
poo'tooa, Fotoohàà bearing nearly NNE, Kotoo SWbS, and the shoal
to the NE of it SSE and SE. The Discovery also came to soon after a
[439] little to the NE of us. Several Canoes came off from Ha'faiva with
Cocoa nuts & Plantanes and in the morning we sent the pinnace on
[481] shore to Kotoo with our Indian guests, who were so heartily tir'd of
their short Voy[age] that they had once prepar'd themselves to swim
[262] to it. Their greatest distress was with respect to their food, for they
were not fond of Pork dress'd after our manner and liv'd chiefly on
Yams. In the evening we caught a large Snapper of twelve or fourteen
Lib. and a Grooper of the same size.

132 MONDAY 2^{d}. The wind SE. Fresh breezes with cloudy weather in the
forenoon, but afterwards clearer. In the forenoon the Captain went
648 on shore to Kotoo, which is scarcely accessible to boats from the coral
reefs that surround it. It is not more than a mile and a half or two
193 mile long and not so broad. The NW end is low like the islands of
Hapaee, but it rises suddenly in the middle and terminates in reddish
clayey cliffs at the SE end about thirty feet high. The soil thereabouts
is of the same sort as in the cliffs but in the other parts it is a loose
[311] black mould. It produces the same things as the other islands and is
[162] tolerably cultivated but is thinly inhabited. We saw Annamooka
from the highest part of it and the Capt^{n} thought he perceivd a clear
137 passage about Toong'ooa and the other isles towards that place. Our
people were employ'd in cutting some grass for the cattle and we
177 planted some Melon seeds with which the natives seem'd much
pleas'd and inclos'd them with branches. On our return to the boat
312 we met with two or three ponds of water but it was very salt, and
764 near them was one of their burying places that was much neater than
those which were seen at Hapaee.

Several Canoes came from the different islands to barter their cocoa
439 nuts, plantanes &c and we observ'd that almost all of them as well as
164 the inhabitants of Kotoo were affected with a violent cough and
slight sore throat, which also made its appearance on board for two
days past, perhaps from the sudden change to and continuance of the
bad weather.

Poulaho to be King of Amsterdam & the other isles but seem'd to 634
insist very much upon it, perhaps from a fear of offending the other 648
when he should hear of his former presumption.

The inhabitants have been very busy in cultivating while we were 643
absent for they have made several large Plantane fields in places that 245
were waste at first. We observ'd here as well as at Kotoo a good many
of the small hillocks where the Yams are planted strew'd with a little 244
white sand, which they say are those intended for the use of the chief. 565
The Melons which the Captn sow'd here have come up but are mostly
eat by small insects & some of the Pine apples left with Toobou seem 137
to be in a thriving state. 177

SATURDAY 7th. The wind ENE. Fresh breezes with fine clear weather. 241
In the forenoon Poulaho came from Kotoo and we could at once see 132
his superiority to Feenou on meeting him, for the last plac'd himself
down in the circle that sat before Poulaho as an indifferent person. 643
He seem'd at first rather abash'd as some of us were present who had 634
been us'd to see him as a different person, but he soon recover'd
himself & both he and Poulaho went on board with the Captain. He [576]
behav'd there much as any of the others that attended Poulaho, [644]
saluting his foot with his head and hands and could not ther[e] eat [576]
nor drink before him.

A few Canoes came off to the ship but we had less trade on shore 439
than yesterday as most of the people went away when Poulaho
landed. 643

Some of the Indians stole three glasses belonging to the Astronomical
Quadrant while Mr King was observing on the beach, but 648
they were soon recoverd by applying to Feenou who had been very 634
usefull to us before when things were stole both here and at Ha'paee.

SUNDAY 8th. The wind ENE and NE. Moderate breezes but at night 132
rather gentle. The weather fine. A moderate sea. Between eight and
nine in the morning we weigh'd and left Annamooka steering SBW 114
for the island Amsterdam. The islands to the SE of Annamooka which
we had on our left are first Mango'eeke, Mango, Tonoo'maia, 133
Ko'noogoo and Falla'fa'jeea.[1] There is also a very small one off 103
Kon'oogoo call'd Gefoo'ganna[2] from which runs a large shoal nam'd
Ko'foonga'lillo.[3] In the evening between five and six we saw two
islets or rocks bearing W about four leagues, the Noermost call'd
Hoonga ha'paee and the other Hoonga'tonga.[4] The first has only five 162

---

[1] Kelefesia.

[2] I cannot identify this shoal.

[3] Kefikana, a conspicuous white rock.

[4] Hunga Ha'apai and Hunga Tonga.

55: Anderson D,T-5 (1777) 1967 OU9 Tonga OU9

[1777]

162 men living upon it according to two Indians we carry'd with us, and
the other is uninhabited but both abound in sea fowl.

648 Poulaho and Feenou set out with us in different Canoes attended
634 by several others but they soon outsaild us and in the evening steerd
more westerly than we.
643

MONDAY 9th. *Lat.* Obs. 21.04 S. The wind NE and NNE. Gentle breezes
132 and in the forenoon almost calm. The weather very fine but hot.

In the morning at day light we saw Amsterdam or as the natives
114 call it Tonga'taboo though much oftener simply Tonga, and some
103 small isles that lye off it, but we had made little progress in the night
as Hoonga Ha'paee and Hoonga'Tonga were still seen astern. The isles on the left or to the E^{t}ward as we steerd sbw, reckoning from the N^{o}ermost were 'Taoo, A'tàà, Eoo'èeegee, Motoo'taboo, ennevy, Noogoo or Fook'avee, E'ooa[1] or Middleburg appearing over the E part of Tonga and Malee'nòà[2] a very small one but a little to the left. There was also a shoal call'd Tanga ma'noonee to the W^{t}ward of Eoo'eeegee and another call'd Tooa'onne[3] lying E of Malee'nòà.

On the right or to the westward was a shole call'd Ha'kou ma'màò,[4] lying without the first islet nam'd Atta'tàà[5] which appear'd now within the west end of Tonga. The second is Too'fagga[6] which was a very little to the right, and within Atta'tòà are two small ones, the larger or inner call'd Ho'lòà[7] and the other which is close to it Laggebai'ou.[8] A-head there were several Islets as Vaille tòà'neeoo, Vaille toa'hagge[9] and Mon'ooafai,[10] all small besides Fa'fàà,[11] a little larger, and within that Makka'haa.[12]

114 The pinnace was hoisted out and sent to sound as we had only 25
fathom, the extremes of Tonga at eight o clock bearing &
133 . At ten we were passing over a flat of Coral rock and small
patches of sand which could easily be seen with eight and ten fathom, and not long after had sometimes but six or seven. We had pass'd Maleenòà about a mile when we found the Ship touch on the rock, but without much violence as the breeze was gentle and the water

---

[1] The foregoing are Tau, Ata, 'Eua Iki, Motu Tapu, 'Onevai, Nuku, Fukave (these last two different islands), 'Eua.

[2] Malinoa.

[3] These two names may exist still in local knowledge, but do not come on to the charts or into Gifford's *Tongan Place Names* (Honolulu, 1929).

[4] Hakaumamao. The name means 'distant reef'.

[5] Atata.

[6] Tufaka.

[7] Polo'a.

[8] Alakipeau.

[9] These two islets are now referred to as one, Velitoa; they are separated by only a few yards of water, wadeable at low tide. The two names given by Anderson may refer to their appearance: Velitoa-nifo—'Velitoa with the teeth', and Velitoa-hake—'Velitoa that rises up'. Anderson's versions of the names are borne out by the engraved chart, pl. XIX in *Voyage*, I; but Gifford, *Tongan Place Names*, p. 257, gives them as Velitoahihifo, (Western Velitoa) and Velitoahahake (Eastern Velitoa).

[10] Monu afe.

[11] Fafa.

[12] Makaha'a.

58: King G,T-5 (1777) 1967 OU9 Tonga OU9

[1777]

mother; whenever we ask'd what they were, & if very superior people, 175
they woud be surpris'd at the Question, & said they were Tamaha's, a 177
distinguishing name higher than any, but what particular meaning is in 644
the word, we coud not find out. Although from their fathers country they 604
might not be intitled to power & Possesions, yet their superior rank may 565
arise from that line, as they generally admit that they are oblig'd to shew [576]
signs of respect to the Feegee chiefs, by folding their hands before their
face & bowing their bodies. Women in this Country enjoy equal Privi- 562
ledges of honour & respect with the men, for at our Observatory there were 175
two women who had homage paid to them by the Chiefs, & to one of them 602
Fattafaihe used to bow: I understood this woman to be his near relation,
she had her husband with her, who enjoyd none of these marks of honour.

'Eua

f. 86v. [13 JULY] ... on the top of the hill is a circular place pil'd round 133
with coral stones & one or two large ones in the middle, this place they [349]
call'd Etchee[1] & said it was built as a mark of Powlohows sovereignty; [312]
there was an Excellent spring of fresh water close by it; we met in several
places in the chasms of the rocks very good water & which might be
conveyd down to where the Natives are, yet they do not appear to regard
good water, as they in their houses always gave us indifferent & often very
brackish water to drink. We were all delightd with the charming prospect
from this hill; the Sea on the SE side of the Island is but at a little distance
from it & the land rises in broken hills, rugg'd & cliffy, & is not capable of
much improvement, but the NW part of the Island has a fine assemblage
of hills & Valleys with extensive Meadows & patches of wood, with now
& then a plantation; Yet this kind of Country, which we praise so much,
does not answer so well the purposes of what the Natives cultivate as the
flat borders by the Sea Side, so that it is in a great measure Waste; but it
struck us strongly, as the best calculatd place for Cattle of all the Islands;
& we thought that to make the Landscape the most charming one
imaginable, woud be sheep & Cattle upon the Meadows & hills before us;
We rather hop'd than firmly believ'd, that the sheep which had been given [177]
to Marrawaggee & now put on shore here woud thrive, since the 2 Yews
were very poor & the Ram quite young, however as there are no dogs yet
in this Island & as the Natives do not much admire them, they stand a
chance of being unmolest'd & from that circumstance may thrive &
answer the purpose for which they are left.

DESCRIPTION OF THE FRIENDLY ISLANDS

[*Adm 55/116, ff. 88v–89, 89v–90, with excisions*]

In regard to their numbers I know of no criterion by which to make even a 175
tolerable guess, the Natives followd us from one Island to another, there- 161
fore it is not possible to know the number of any one Island we visit'd; at 162
609

---

[1] *sti.*

58: King G,T-5 (1777) 1967 OU9 Tonga OU9

[1777]

the time that their entertainments were exhibit'd there might be not short 175
of 12,000 people, who built temporary huts or slept under the trees about 161
the tent; at the Ceremony at Moa[1] we suppose not less than 600 chiefs 162
were assembled, but from these bodies I see no good conclusion to be [609]
drawn of the number in either all, or any one of them. From the Nature of
the Country, requiring the labour & industry of the Natives for their [361]
support, it cannot be near so populous in proportion to their size as what [311]
the Society Islands are; the houses here are by no means thickly scatterd [139]
about & many parts in all the Islands are uncultivat'd, owing to the [133]
Sandiness & poverty of the Soil in low Islands, & in the high ones to their
elevatd & expos'd situation; besides the larger low Islands have extensive
lagoons & lakes as at Tonga & Anamooka, which considerably lessens the
surface, leaving therefore their population to be gatherd from the nature of
the Country. We will proceed to their Colour, form, & Natural dispositions.

The Friendly Islanders are of a lively brown Colour & a shade darker 142
than Omai. Although many of their principal women were fairer, their
colour resembles that of the Mallays we saw at the Cape of Good hope;
they are in general above the middle size, many very tall men & but a few
under sizd, they are firmly & compactly made about the joints, broad
shoulderd & Muscular, & perhaps few natives exceed them in that form,
which requires both strenght & agility; this is even to be observ'd in their
walking but abundantly shewn in their athletick exercises & dances: their [302]
hair I believe is universally black or a dark brown when young, but they [765]
have a method of colouring it which deceives one at first; it is not unusual
to see two diff^{t} colours on the same head, & perhaps one purple; a sort of [175]
chalky paste which they very often daub upon their heads turns the hair a
yellow sandy colour; they are still more various in their fashion of wearing
it, being cut short on some parts & others left long, yet as they seem to
admire fine long hair, we rather suppose that when it is even partially cut,
& we know it to be the case when all short, that it is in memory of some
deceas'd friend. There are but few who have beards, but shave very 142
dextrously with 2 shells, laying one under the hair & the sharp point of the 302
one above meeting that of the one below, cuts it close off. The Chiefs have 175
glossy smooth skins preservd so by frequent washing; & as fresh water is 565
scarce, they after bathing in salt water throw over them a few coco nut 515
shells of fresh, which takes the salt which otherwise adheres to the skin, & 312
which gives a disagreeable roughness to that of the common people, &
afterwards rub over their bodies Coco nut Oile perfectly sweet & free from
any disagreeable smell. There are nevertheless many cutanious marks 175
from disorders & from voluntary inflictions; more than half of them are 164
affect'd with the tetter or ringworm, which leaves behind a whitish mark; 765
boils & blotches are often met with, & inflam'd sore Eyes are frequent; few
are free from marks on the Cheek bone, which they make by quick repeating strokes with the knuckles on the death of their friends or relations,
besides these there are many other disfiguring marks inflict'd on the same

---

[1] Mu'a.

197 'peculiar way of speaking.' The language of Niuafo'ou, although it is
Tongan, has a dialect status which shows grammatical relationships with
Samoan. Unfortunately for the world of anthropological linguistics
this dialect has never been fully studied and it is in danger of dying
out, for the younger generation speaks the main dialect of Tongan and
535 only the remaining old people speak the Niuafo'ou dialect. The tau
178 faka-Niua is a dance local to Niuafo'ou, and it too is in danger of
being forgotten.

133 This chain of volcanic islands is relatively unimportant to Tonga
182 today, but it is these very islands that are important for an understanding
of the ecology which supports the Tongan social system. The
main inhabited islands of the Tongan group are coral islands, which in
most Pacific areas would be associated with lack of fertile soil and
[134] often a subsistence level economy. In Tonga, however, the flat coral
islands have reaped the harvest of the close volcanic islands and the
resulting deep, rich volcanic soil has made it possible to develop an
economy of surplus to maintain Tonga's highly stratified social system.
[162] The population concentration is mainly on these low-lying islands to the
134 east of the volcanic chain. The largest of this group of limestone
133 islands, Tongatapu, is less than 270 feet high, but in many places has
241 a soil depth of ten feet. The soil is excellent and a very large
proportion of the islands are intensely cultivated. The main food
plants are yam, taro, sweet potato, banana, sugar cane, manioc,
[262] coconut, and breadfruit. In addition, fruit of the mango, orange,

[TEXT CONTINUED ON PAGE 16]

161 taken at the end of 1966, are not yet published, but it was anticipated that the number would reach 70,000. The last published figures are from 1956 (Tupouniua 1958) at which time the total population was
[162] 56,838. Of this number 55,156 declared themselves to be Tongan, 277 European, 604 part European, and 801 others (mostly other Pacific Islanders).

144 Tongans are Polynesians, but there is a definite admixture with Fijian, with whom both today and traditionally, there is much social intercourse. In many genealogies there are one or more Fijians, and they are more highly admired than Samoans who are much closer to
644 Tongans in physical type. The late Queen Salote's half-brother is
582 the son of her father, Tupou II, and a Fijian woman. The social
609 system of Tonga, based on a hierarchical ranking of persons, creates a category of people with no one of equal rank to marry. In the past this was often remedied by marriage with Fijians creating a societal division called Ha'a Fale-Fisi.

197 Tongans have their own language which seems to have been the first to split from the proto-Polynesian language family. The Tongan language has its closest similarities with Uvean and Niuean and
195 broader similarities with Samoan and Fijian. Highly developed in
565 Tongan is a language of respect in which words correspond to the three societal levels. Thus when speaking to the King different words are used than when speaking to chiefs, and still different words when speaking to commoners. Thus 'go' is *hā'ele* for the King, *me'a* for

175 1850:245). Archival research in Australia revealed an intriguing census figure
161 for the main island of Tongatapu for the year 1824: 34,800 Tongans
114 (Beveridge 1824). Unfortunately, the good Captain had less the motivations
[162] of a preliminary census taker and more the motives of businessman *cum* sea
captain trying to convince the Wesleyan Mission (with whom he had contacts
and to whom the letter was written) of the tremendous "sales market" for
material goods and nineteenth century Christianity in the archipelago.[1]

Aboriginal Adoption

597 Tongans had at least five distinct terms involving transactions between kinsmen which could be glossed under the one rubric "adoption" (and which have been glossed thusly in the past); these were *tauhi, ngaahi, fakahingoa, pusiaki,* and *ohi.* The recent research suggests, however, that *ohi* is the only term that should be termed "adoption" in aboriginal Tonga. Every time an *ohi* transaction took place there was a distinct and permanent change in (1) the rank and (2) the residence of the adopted individual. These permanent changes did not take place when the first four transactions occurred.

Rank and residence pattern are the two criteria by which adoption must be gauged in aboriginal Tonga. When a child was involved in an *ohi* transaction, that is, an adoption involving the permanent substitution of full rights of parenthood from biological parents to other individuals as parents, the adoptee had a permanent change in his (or her) rank relative to all kinsmen; the adoptee also made a permanent move into the residential area of the adopting individuals. The adopted child was treated as if he or she were actually a biological child of the adopting parents, and all important genealogical positioning was henceforth determined for the adopted individual from the adopting parents. The change in residence meant that the adopting parents were totally responsible for the welfare and up-bringing of the adopted child. Such a residential change could involve a move from one island group to another island group, or changes in residence from one village to another village (or district) on the same island.

Not-Adoption

Adoption in aboriginal Tonga will be clearer after discussing that which
597 was not adoption. *Tauhi,* or "looking after someone," was not adoption since
855 it merely referred to the process by which one individual looked after the
child of another individual. Looking after someone was only a transitory
transaction and did not involve any change in the rank of the individual who
was thus looked after (although it could obviously imply a residential shift).[2]

64: Urbanowicz E-4,5 (1970,1971) 1976 OU9 Tonga OU9

DRINKING IN THE POLYNESIAN KINGDOM OF TONGA

by

Charles F. Urbanowicz
California State University, Chico

ABSTRACT

The paper provides information on the drinking of kava (*Piper methysticum*) in the Polynesian Kingdom of Tonga. The importance of drinking in traditional and contemporary Tongan society is discussed as well as changes which have taken place over time.

Introduction

The Kingdom of Tonga is located approximately 550 miles southwest of the islands of Samoa and approximately 450 miles southeast of the islands of Fiji. 131 The islands have a total land mass of some 269 square miles and the largest and principal island of the group is Tongatapu Island (100 square miles). Recent Carbon 14 analysis indicates that Tongatapu was the first of the Polynesian Islands to be settled, with a Carbon 14 date indicating 172 occupation from at least 1140 B.C. (Groube 1971:303). 162 The estimated population of the Kingdom in December of 1973 was 92,587. The last and most thorough census of 1966 indicated that 98.31 per cent of the 77,429 inhabitants were Tongans. Tongans are strong Christians and in 1966 only 61 171 individuals did not list any religious affiliation (Fiefia 1968:23).

The islands were formerly a protectorate of Great Britain but on 642 4 June 1970 they became fully independent and entered the British Commonwealth. Tongans have a Constitutional Monarchy (dating from the Constitution of 1875) combined with a Parliament. The current monarch of 643 Tonga, who acceded to the throne in 1967 after the death of his mother (Her Majesty Queen Salote Tupou III), is His Majesty King Taufa'ahau Tupou IV, K.C.M.G., G.C.V.O., K.B.E., C.B.E., B.A., L.L.B., and Honorary Doctor, University of the South Pacific [Knight Commander of (of the Order of) Saint Michael and Saint George; Knight Grand Cross of the (Royal) Victorian

ETHNOHISTORY 22/1 (Winter 1975)

size and its social and economic functions, Nuku'alofa cannot be 369
regarded merely as an overgrown village. The South Pacific Commis-
sion, recognising the difficulties in defining the term "urban" in the 369
South Pacific area, proposed three characteristics typical of Pacific
urban settlements. A heavier concentration of population, an occupa- 171
tional structure involving a larger proportion in non-agricultural
pursuits, and a form of government suited to the needs of the town.[6]
Nuku'alofa meets the first two characteristics and, by being the 369
centre of all Tongan administration, must be considered as different
from other settlements in Tonga even though it possesses no government 633
peculiar to itself.[7] As the capital of the kingdom it has several
functions different from other towns in Tonga. It is the centre of 369
administration, trade, commerce, church activities, education and
other social services, the main port and the meeting ground for old
and new, Tongan and foreign. Rural migrants form a large part of its [166]
population, its growth rate is much greater than almost all other [162]
settlements, it is considerably larger than any other town, and its
inability to meet the problem of rapid inward migration is beginning [161]
to show in ways similar to urban areas outside Tonga where the same
processes are at work. This is dramatically portrayed in a recent
communique: 369

> "The prison is full and the court overworked. On the 16th of 579
> March more than a hundred young people were involved in violent
> fighting in the streets of Nuku'alofa. Several boys received cane
> knife wounds and over thirty are being charged in a special court
> today."[8]

Thus, while conditions and attitudes appear rural, Nuku'alofa 369
must be classed, by Pacific standards, as an urban settlement. 171

urban characteristics

361
The emergence of Nuku'alofa as the future capital of Tonga can
be traced from an early association with the Tu'i Kanokupolu line of [643]
high chiefs.* Later, during the period of civil wars (1799-1845),
the previously dispersed Tongan settlements became nucleated villages
for reasons of defence.[9] Subsequently the settlement became the main [795]
centre of Wesleyan Christianity and was chosen by the victorious
Taufa'ahau (now King George I) as his permanent place of residence. [643]
It was from this time that the new village of Kolofo'ou (new town)
emerged as the settlement of the king's followers, as distinct from
the adjacent older settlement of Nuku'alofa which now assumed the name
Kolomotu'a or old town. Ma'ufanga, the third distinct area of

---

* See glossary for all Tongan words used in text.

present-day Nuku'alofa, remained a separate village three miles east 361
of these settlements until population increase brought it within the
town's boundaries in recent years. Today these three settlements
occupy an area of little more than two square miles on the northern
side of Tonga's biggest island, Tongatapu. In 1966 the population 161
was almost 16,000, nearly one-third of the population of Tongatapu and 162
one-fifth of the population of the whole island group.

Its annual rate of population growth (6.9 per cent 1956-66) is
nearly twice that of the kingdom as a whole so that today it has an
estimated population of almost 18,000. It is four and a half times
larger than the next largest settlement and its population density of
twelve people per acre is high by Pacific standards.[10] It contains 162
most of the kingdom's non-Tongan population but these constitute only
seven per cent of its total population. In 1956, the last census to
be analysed, 43 per cent of the population had been born outside
Nuku'alofa (see Table I and Fig. 1).

Table I 162

Urban Comparisons within Tonga, 1956 161

Town Island Group	Nuku'alofa Tongatapu	Pangai-Hihifo Ha'apai	Neiafu Vava'u
Population	9202	2803	2873
Next largest town in Island Group	2560	753	1004
Median Settlement size in Island Group	262	274	232
Town's percentage of population of Island Group	29*	28	23
Percentage of Tongan population in Island Group	55*	17	22

Source: 1956 Census

* Preliminary figures released from the 1966 census indicated that these percentages had risen to 32.5 and 61.9 percent respectively.

There are difficulties in using conventional indices to 464
classify employment in largely agricultural societies. This is true
for the Tongan villager who, although more often an agriculturalist
working his land for his family, will also "try his hands spasmodically
at a number of other occupations that are likely to yield extra
cash ... for example, the typical villager might fish occasionally for

464 sale, and run a single-room grocery shop in his village...."[11]
Classification is obviously even more difficult in Nuku'alofa where
the opportunities for additional part-time or casual employment are
464 considerably greater. Thus in Nuku'alofa in 1956 a large number of
males were "employed" in agriculture (45 per cent) and secondary
162 industry was relatively unimportant, absorbing only 7 per cent of the
male work force (see Table II). Of the total work force 81 per cent
were employed in tertiary work and a relatively large proportion of
women were included in the total labour force (35 per cent). Further
characteristics of the employment structure in Nuku'alofa were the
dominant role of government and quasi-government produce boards in
providing employment and initiating industrial development (at least
one-quarter of the labour force so dependent),[12] the absence of a significant foreign private sector, the predominance of Tongans in all
levels of employment, and the wide range of small-scale Tongan enterprises. In addition, much of this labour force, especially those
classifying themselves agriculturalists, would be better considered
underemployed and in many cases unemployed.

Table II

Male Employment in Nuku'alofa, 1956*

Employment	Percentage of those in Nuku'alofa	Percentage of those so employed in Tonga
Agriculture	45.7	10.2
Commodity Boards	5.5	57.6
Commerce (shops)	5.2	22.0
Transport & Communications	9.5	64.7
Services	19.9	26.0
Part-Manufacturing and Processing	6.8	33.4

Source: Sorting Cards, 1956 Census

* The male working age group was defined as 20-59 years. Over fifteen per cent of females in these age groups were in paid employment, representing 35 per cent of the total labour force.

464 The high proportion employed in agriculture demonstrates the
369 close links between Nuku'alofa and its rural hinterland. In this
respect it probably has more in common with the classical nucleated
[171] village than with most port towns in other parts of the Pacific. Its
occupational structure, however, differs greatly from rural villages
in Tonga where almost all the males are at least primarily employed in
agriculture.[13]

113 references

1. Belshaw, C., 1963, "Pacific Port Towns and the Theory of Growth". In A. Spoehr (ed.), Pacific Port Towns and Cities, Bernice P. Bishop Museum, Honolulu, 17-24. For a general description of the town see Walsh, A.C., 1964, "Urbanisation in Nuku'alofa, Tonga", S. Pacif. Bulletin, 14: 45-50.
2. cf. McTaggart, W.D., 1963, Noumea—A Study in Social Geography, Unpublished Ph.D. Thesis, A.N.U., Canberra, and Bellam, M.E.P., 1964, The Melanesian in Town..., Unpublished M.A. Thesis, V.U.W., Wellington.
3. For characteristics of such societies see Goldman, I., 1957, "Variations in Polynesian Social Organisations", J. Polynes. Soc., 66: 374-391, and for a critique of his views see Hawthorn, H.B. and Belshaw, C., 1957, "Cultural Evolution or Cultural Change? The Case for Polynesia", J. Polynes. Soc., 66: 18-36.
4. Belshaw, 1963.
5. Spillius, J., 1959(B), Report of a Social Survey of Villages of Tongatapu, cyclostyled, W.H.O. Office, Nuku'alofa.
6. South Pacific Commission, 1962, "Urbanisation in the South Pacific", Report of the Urbanisation Advisory Committee meeting, Sept. 1961, S. Pacif. Comm. Tech. Paper, 137, Noumea.

000 7. An elected Town Council is likely to be formed this year in Nuku'alofa and several other settlements.

113 8. Ongoongo mei Tonga, 1968, 4: 27 (a newsletter for Tongan students overseas).

9. Maude, A., 1965, Population, Land and Livelihood in Tonga, Unpublished Ph.D. Thesis, A.N.U., Canberra, 27-28, and Kennedy, T.F., 1958, "Village Settlement in Tonga", N.Z. Geogr., 14: 162-163.
10. de Bruijn, J.V., 1963, "Urbanisation in the South Pacific", S. Pacif. Bulletin, 13: 20-24 and 66-67, suggested that Suva had nine people per acre; but Whitelaw, J.S., 1964, "Suva Capital of Fiji", S. Pacif. Bulletin, 14: 33-37, stated that the density ranged from two to thirty-two people per acre.
11. Kingdom of Tonga, 1958, Report on the Results of the 1956 Census, Nuku'alofa, 32.

444
162
12. Some 24% of the household heads interviewed in 1963-4 in a sample survey were employed by government or the commodity boards and a further 19% had close relations in non-labouring government or board jobs. It appears reasonable to assume that over one-quarter of Nuku'alofa's male workers are employed in this way.

133 Kao (not shown on the map), while Vava'u is a compact and comparatively hilly group, its surface made up of a series of terraces.
134 The most common soil type on all these islands is a fertile, friable soil, termed *kelefatu* by Tongans, which varies in texture from a loamy sand to a clay. Although almost always underlain by coral limestone, the main parent material of this soil is volcanic ash, which gives it a mineral fertility very much higher than is usual for soils on raised limestone islands. The other main soil type is *tou'one*, a sandy and less fertile soil found at low elevations close to the sea. Although present in all the islands of raised limestone formation it is proportionately most important in Ha'apai, where it may occupy up to half the area of some of the settled islands. It appears to be derived entirely from coral sand or limestone and decayed vegetable matter, with perhaps the addition of small amounts of volcanic ash and pumice.

132 Rainfall is generally sufficient for good plant growth, with the northern group, Vava'u, having a more humid climate than the islands further south. Mean annual rainfall increases from 1,700mm at Nuku'alofa (Tongatapu) to 1,780mm at Pangai (Ha'apai) and 2,180mm at Neiafu (Vava'u), while the percentage of dry months in the rainfall record, using Mohr's definition of a dry month (Mohr, 1944, 53–8), decreases from 23 per cent and 25 per cent respectively in
132 Tongatapu and Ha'apai to 16 per cent in Vava'u. This combination
133 of fertile, volcanically-derived soils, generally adequate but not
134 excessive rainfall, and easy topography provides good conditions for crop production throughout all the main islands of Tonga.

POPULATION DISTRIBUTION AND DENSITY

161 The total population of Tonga in the 1966 Census was 77,429
128 persons, distributed as shown in Table 7.1. In the table Tongatapu
162 and Vava'u have each been divided into two districts of contrasting density, and in Tongatapu an attempt has been made to obtain a realistic rural population density figure for the central and eastern district by subtracting both the population of the main town, Nuku'alofa, and the area of agricultural land surrounding the town
161 from the calculation. Areas of high population density are the western
162 tip of Tongatapu, and most of Ha'apai (where individual islands have densities ranging from 121 to 410/km^2). Densities are moderate in central and eastern Tongatapu (ranging from 96 to 159/km^2) and

67: Maude K-5 (1961) 1973 OU9 Tonga OU9

161 **Table 7.1** Crude population densities by districts and island groups, 1931 and 1966 (Tonga)
162

District or group	*Population 1966*	*Persons/km² 1931*	*Persons/km² 1966*
Nuku'alofa*	18,686		
Western Tongatapu	2,318	112	210
Central and eastern Tongatapu	26,916	31	126
'Eua	3,391	4	39
Ha'apai	10,591	122	202
Southern and eastern Vava'u	10,668	87	149
Western Vava'u	2,865	32	66
Niuatoputapu and	1,994	37	37

[128] * Includes some of the villages around Nuku'alofa whose lands cannot be separated from those of the town.

in southern and eastern Vava'u, and low in 'Eua and western Vava'u.

Two broad explanations can be offered for this pattern, one static and the other dynamic. As Table 7.1 demonstrates, the contrast between western Tongatapu and Ha'apai, and the rest of Tonga, was much more marked in the past than at present, and it can be shown to date back to at least the nineteenth century. These long-established differences in population density cannot be explained by 161 differences in land quality. Climatic and soil conditions in western 162 Tongatapu and Ha'apai appear to be similar to those in central and eastern Tongatapu, although in Ha'apai the less fertile *tou'one* soil 134 type occupies a higher percentage of the total land area than in Tongatapu. And while there may be some soil differences between western and eastern Vava'u which could help to explain the contrast in population densities there, in the absence of a soil survey there is 161 insufficient evidence with which to test this possibility.* The main

---

361
162 * H. S. Gibbs, in a paper presented to the 1971 Pacific Science Congress in Canberra on the results of a 1967 soil survey, states that the main difference in soil types in Tongatapu is between yellowish-brown sticky clays in the eastern part of the island, and reddish-brown friable clays in the rest of the island. This pattern of soil types does not correlate with the pattern of population densities.

161

explanation seems to lie in the relationship between settlement and 162
marine resources. In the past, fishing and reef-collecting were 361
important subsistence activities along with food cropping, although [226]
in recent years they have declined as canned meat and fish have
become more easily obtainable. Settlement therefore tended to concentrate [178]
along the most productive shores; in Tongatapu, for
instance, over 70 per cent of the villages are located along the low
northern shore and around the lagoon, the areas considered to be
the most productive in seafoods, while in Ha'apai, which has
particularly extensive reefs and fishing grounds, only the very
smallest islands or those without *kelefatu* soils have failed to attract
settlement. Conversely, in 'Eua the surrounding reef is narrow and [133]
sometimes dangerous and the offshore waters deep and unsheltered,
and until recently the island, despite its size, had only a tiny population.
Population densities were therefore higher where shores and
reefs were productive but the land area limited, as in western
Tongatapu, Ha'apai and parts of southern and eastern Vava'u, than
where productive shores were backed by extensive areas of land, as
in central and eastern Tongatapu. The lowest population densities
were along unproductive shores, as in 'Eua, western Vava'u and
parts of the south coast of Tongatapu.

This subsistence-orientated distribution of population in the past 166
has by now been considerably modified by internal migration, which
constitutes the second broad explanation of the present population
pattern. Internal migration is largely directed towards Nuku'alofa,
the capital, central and eastern Tongatapu and 'Eua, and away from
western Tongatapu, Ha'apai, Vava'u and Niuatoputapu. It reflects [184]
movement in search of employment, education, land for cash cropping,
and the attractions of urban life and is a result of the growing
regional inequalities in development and opportunities within
Tonga. Further discussion of migration, however, will be left to a
later section, where it is examined in the context of the response of
Tongans to population pressure. The main effect of internal migration 166
on the earlier pattern of population distribution has been to 162
reduce the contrasts between central and eastern Tongatapu and the
long standing areas of high population density, but as migration 161
appears to be continuing at a high rate further changes in population
distribution can be expected.

Having outlined the main elements of land resources and population 128
distribution we may now turn to the question of population

128 pressure. As the term is used here, 'population pressure' implies the
[121] existence of stress in the man/land system resulting from increases in
population density, stress being indicated by a deterioration in some
of the variables in the system, such as a decline in the nutrient status
of the soil or an increase in land disputes (Farmer, 1954; Lea, 1964,
1965; Street, 1969; Vermeer 1970). The following sections therefore
examine three aspects of the man/land system—land tenure, the
agricultural system, and the human perception of and reponse to
population pressure—to see if there are any indications of stress.
Analysis of the effect of population density is mostly through a
comparison of areas of different density, chosen so that other independent
variables are reasonably constant. For example, study of
the effect of population density on the food cropping system is
confined to Tongatapu and Ha'apai, for within these two groups
climatic and soil conditions are broadly similar, but are different to
those in Vava'u.

LAND TENURE

423 The land-tenure system of Tonga is highly distinctive, differing in a
171 number of respects from the systems found in other parts of the
Pacific Islands. Every taxpayer (every male aged 16 years and over)
423 is entitled by law to an allotment of 3·2ha of agricultural land,
known as a tax allotment, as well as a small piece of land in a village
or town for his house. These allotments are granted to individuals
423 as a lifetime, inheritable leasehold from the Government, if on a
427 Government estate, or from the title-holder on a chiefly estate, and
no one may legally hold more than one allotment of each type.

423 In reality, however, many Tongan men do not have the allotment
to which they are entitled. In the 1966 Census only 8,305 or 41·6
423 per cent of all Tongan males aged 16 and over stated that they had
162 a tax allotment. Although this figure conflicts with the 1966 Report
127 of the Lands and Survey Department, which recorded the total
number of tax allotment holders in December 1966 as 12,517
(G. Rogers, 1969, 216), this latter figure is almost certainly incorrect.
423 A more detailed impression of landholding is given in Table 7.2,
128 which presents the results of a number of village studies. The table
shows that in only one village, Niutoua, did over half the taxpayers
have their legal entitlement, while in most villages a large proportion
592 of taxpayers and households had no land at all. It should be noted

67: Maude K-5 (1961) 1973 OU9 Tonga OU9

Table 7.2 Land distribution: some village surveys, Tonga (*Sources:* Ha'afeva,
Ha'avakatolo, Ha'akame and Niutoua, field survey by writer; 'Uiha, Koch (1955), 423
120—1); Nukunuku, field survey by R. G. Crocombe; Ha'ateiho, Nayacakalou 592
(1959, 104). The figures for Ha'afeva and Niutoua are based on sample surveys.)

			Percentage distribution of households and taxpayers by area of land held (ha)					
Village	*Persons/ km²*		0 %	0·5–1·4 %	1·5–2·6 %	2·7–3·8 %	3·9–6·2 %	6·3 *and over* %
Ha'afeva	264	H	43	10	28	12	7	—
1966		T	61	8	29	2	—	—
'Uiha	186	H	9	10	41	24	13	3
1952								
Ha'avakatolo	178	H	18	9	9	27	16	21
1962		T	45	4	8	22	11	9
Ha'akame	150	H	31	—	2	49	4	14
1962		T	55	—	1	37	4	3
Nukunuku	133	H	30	—	1	51	3	
1960		T	51	—	1	44	1	3
Ha'ateiho	110	H	25	—	—	58	—	17
1957								15
Nioutoua	70	H	3	—	—	66	—	31
1962		T	18	—	—	82	—	—

H = percentage of households.
T = percentage of taxpayers.

that a household in Tonga now generally consists of a nuclear family 592
or a nuclear family plus unmarried relatives of the husband or wife,
and practically every household has at least one taxpayer, some of
them having two or more.

One major reason for this discrepancy between the law and reality 423
in the holding of land is the simple fact that there are now more 161
taxpayers than allotments. The total number of allotments so far
marked out is about 12,140, but in 1962,* when four of the village 162
surveys were carried out, there were already about 18,400 taxpayers,

---

* Based on a count of allotments on the maps of the Lands and Survey Depart-
ment, with every two blocks of less than 1·6 ha being combined to form one [127]
holding, as has been the practice in Ha'apai where many men have their holding
split into two sections on different soil types.

423 and the 1966 Census enumerated 20,003 males aged 16 and over.
161 A second reason is the uneven distribution of population discussed
in the previous section. In areas where population densities are about
162 180/km^2 and over (i.e. 0·56ha or less, per person, of all land), most
holdings have for many years been less than 3ha; when cadastral
surveys were first carried out in these areas the population density
was already such that holdings were generally about 1 to 2·5ha, and
any attempt to stick to the statutory size of allotments would have
423 led to the dispossession of many landholders. Despite the small size
of the holdings there are still many more men entitled to land than
there are allotments, and the typical pattern of land distribution in
these areas is shown in the figures for Ha'afeva and 'Uiha (Ha'apai)
and Ha'avakatolo (Tongatapu) in Table 7.2. In Ha'afeva the high
level of landlessness is partly a result of the fact that nearly half the
persons who held land on the island in 1966 lived elsewhere in
Tonga, and this phenomenon of a large number of absentee landholders
is common to many islands in Ha'apai. In areas of moderate
population density (around 100 to 150/km^2) the pattern of land
distribution is as shown in the date for Ha'akame, Nukunuku and
Ha'ateiho in central Tongatapu. On these estates almost all allotments
are of 3·2ha and consequently a larger proportion of taxpayers
and households are generally without land than is the case in villages
with higher population densities. Where population density falls to
about 80/km^2 or less the pattern of land distribution is represented
by the figures for Niutoua in eastern Tongatapu, where in 1962 only
3 per cent of the households had no land. Landlessness on this
Government estate would have been even less had it not been for
the fact that one-third of the registered allotments on the estate were
held by people who lived in other settlements, mostly either in
nearby villages or in Nuku'alofa, a not uncommon feature of
Government estates in eastern Tongatapu.

These data on the percentage of households are by themselves of
only limited value in an assessment of population pressure. The fact
that a man does not hold land, or has only a small allotment, does
not necessarily mean that he does not have satisfactory access to
423 land for food production and cash cropping. The borrowing of land
427 from relatives, friends, villagers and estate-holders is common
throughout Tonga, and has its basis in the customary, although now
178 weakened, obligations that exist between kinsmen, friends and a
[241] chief and his people. It is fairly easy to borrow land for growing

shift in food crops, but the use of fertilizers, which represents a basic innovation in the system, is largely confined to cash cropping in Tongatapu and has not been adopted by farmers in more intensively cultivated Ha'apai. Very few farmers see any need to change their traditional techniques.

182
241

161
162

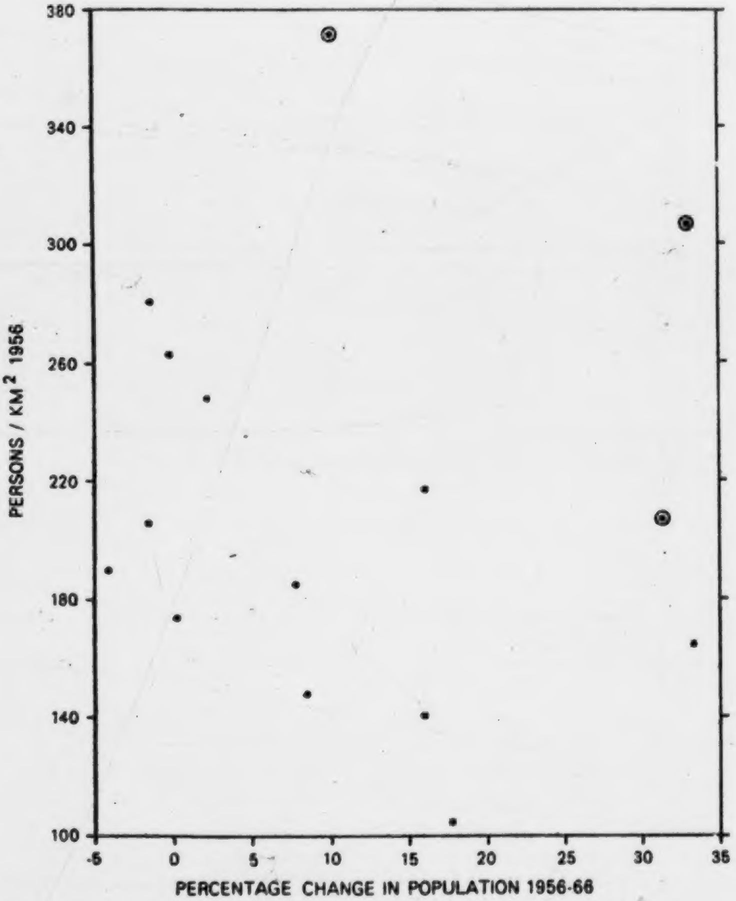


Fig. 7.a Tonga: scatter diagram showing the relationship of population growth in 1956–66 to the 1956 population density

166 The pattern of internal migration, however, shows more sensitive
182 response to population pressure, particularly in Ha'apai. The basic
reason for migration in Tonga is the lack of opportunities to earn
166 money in the outer islands as compared with Tongatapu, but the
182 influence of land shortage is indicated by the fact that, within
161 Ha'apai, population growth between 1956 and 1966 in each island
162 tended to be inversely proportional to the 1956 population density
[311] (Fig. 7.2). The three islands which lie furthest from the general trend
(circled in Fig. 7.2) all have residents who utilize land on the nearby
high island of Tofua, and their effective population densities are
182 therefore lower than those shown. It may be hypothesized that the
higher the population density the harder it is for men, particularly
511 those without their own allotments, to achieve a satisfactory cash-
245 crop income, and in Ha'apai this problem is made greater by the
464 fact that until recently cash cropping was largely restricted to
coconuts, while opportunities for wage employment in the group
166 have always been very limited. Of 20 cases of migration collected in
Holopeka (Ha'apai), for instance, 18 were men without allotments,
182 and 11 of these had left their village at least partly in the hope of
obtaining land. That landlessness is not the only reason for migration, however, is shown in the fact noted earlier that those who had left Ha'afeva (Ha'apai) in 1966 included nearly half the men who
[731] already held land on the island. Employment following education
on the main island, dissatisfaction with village life, a desire to take advantage of the better opportunities to earn money in Tongatapu or to ensure a better education for one's children are all important reasons for movement, while in Vava'u the damage caused to the economy by the 1961 hurricane seems to have been the major determinant of migration from that group in the early 1960s. Nevertheless, the pattern of migration from Ha'apai outlined earlier does demonstrate the significance of land shortage as a factor, and suggests that population pressure is sufficiently felt by many Tongans to stimulate them to leave their home village.

CONCLUSION

121 In the preceding sections we have examined a number of facets of
182 the man/land system in Tonga. Symptoms of stress or pressure were
found in land problems, the fallow vegetation, the nutrient status of the soil, cash-crop incomes and internal migration, and these point

[186 cont.]

133 The island of Namoka, which we left after a stay of two days only,
162 was not above fifteen miles in circuit, but seemed to be remarkably
populous. It lies in 20° 17' S. and 174° 32' W. In the group
131
175 of islands which appeared around it, its size was the most considerable
133 but all seemed to be well inhabited, and very rich in vegetable pro-
162
137 ductions. They are situated on a kind of bank, on which there is from
175 nine to sixty and seventy fathom water, and the soil is probably
133 the same in every island. Namoka consists, like Tonga-Tabboo, of a
175 coral-rock, covered with a rich mould on which all sorts of vegetables
[134] thrive. We had no time to examine the hillock in its centre, which
seems to have had a different origin, and may perhaps be volcanic.
At present it is wholly covered with the richest groves, like the
312 rest of the island. The abundance of fresh water in the pond, is an
175 advantage which the people of Namoka enjoy [187] in preference to those
[515] of Tonga-Tabboo; but it does not appear that they bathe so regularly
as the Taheitians, perhaps because the stagnant water is not very in-
[829] viting. Its advantage is however so much felt, that the natives brought
[415] it to the ship in calabashes, and did the same to Tasman, which implies
that it is looked upon as a valuable article among them. The abundance
137
175 of water, and the richness of the soil likewise seems to be the reason,
that bread-fruit and shaddock trees are much more frequent, and all
[417] vegetation infinitely more luxuriant than on Tonga-Tabboo. The fences
on that account are not laid out, and kept up with that extreme
regularity, though they are still preserved in part. The long walks
of fruit-trees, and the delightful green turf under them, were rather
to be compared to the richest spots on Ea-oowhe, or Middleburg Island.
The tufted arbours which vaulted over the paths, are hung with beautiful

132 on February 16, 1970 to a nighttime low of 55.8° F. on July 17, 1970 (Tu'ipelehake 1970: 2).

Government and Political Organization

642 In June 1970, the Kingdom of Tonga emerged from status as a British Protectorate to a fully independent nation. Today the national government of Tonga takes the form of a constitutional monarchy. Tonga has 646 177 178 parliamentary institutions which appear to be based on a Western government model, but examination of content rather than form reveals Tongan principles at work.

> The Legislative Assembly is unicameral and consists of Privy Councillors, Cabinet Ministers, Representatives of the Nobles and Representatives of the People. Eleven councillors or ministers-all but two of whom are nobles, together with a further seven Noble's representatives, represent the traditional foci of leadership. They are theoretically counterbalanced by seven representatives of the people, many of whom in fact have been elected because of qualities important in traditional Tonga. The system bears superficial resemblance to its English model: it is western in its legal form, Tongan in its benevolent but autocratic practice (Walsh 1967: 120-121).

632 [504] [368] [162] [161] [179] Nuku'alofa, the major port, is the seat of government and the center of economic, social, and religious life of the Kingdom. Nuku'alofa is also the location of most secondary schools and has the largest and best hospital in the islands. With a population of 15,685, 21 percent of the Tongan population resides in Nuku'alofa. Between 1956 and 1966 the town showed an increase in population of 70 percent (Fiefia 1968: 11). Nuku'alofa is beginning to experience the problems of rapid population growth and the attendant phenomena of unemployment, crime, and the inabilities to handle new demands on government services. Walsh (1969:

245 rhinocerous beetle has damaged a large percentage of trees. The banana
crop has recently been infected with a fungus, black leaf streak disease,
to such a degree that many of the growers have stopped planting
commercial crops, and in the remaining plantations the yield is insufficient
to allow profitable harvest. Damage done by careless packing and
[439] improper storage during shipment is resulting in the dissatisfaction of
importers.

241 The 1966 Census of Tonga shows that 66.6 percent of all adult males
[162] were engaged in agriculture (Fiefia 1968: 28). Table 3 gives a full
[463] breakdown of occupation of Tongan males.^A Agricultural techniques are a
[177] mixture of the traditional techniques-swidden agriculture, bush fallow
[178] periods, and hand tools-and modern methods including the use of fertilizers,
light machinery and single crop planting. The older techniques
241 are still the more widely used. A friable, well-drained, and easily-
134 worked soil is the predominant type. Maude (1965: 12-18) gives a fairly
detailed discussion of Tongan soils, their fertility, and their geologic
origins.

241 Tongan agriculture is subsistence oriented and cash-cropping remains
[256] a secondary consideration for most Tongans, with the exception
that law requires the planting and maintenance of a certain number of
464 coconut palms. Wage labor provides income for only a few (Table 3) and
465 wages are low, averaging somewhere between $T1.00 to $T1.75 a day; most
wage labor positions are in the area of services.[1] ^B

A.[See p.19--Analyst] B.[Footnote appears on p.122--Analyst]

TABLE 3

Occupations of Tongan Males 1966*

462
463
162

Area of Occupation	Percent
Agriculture	66.6
Commerce	.9
Transport and Communications	1.6
Services	8.3
Part-Manufacturing and Processing	2.8
Government and Administration	.6
Other (including unemployed)	19.2
Total	100.0

* Adapted from Table A, page 28 of _Report on the Results of 1966 Census_.

Land Tenure

423
421 The present system of land distribution reflects what has been called "overlapping stewardship" and is characteristic of many ethnographic Polynesian societies (Sahlins 1958: 6-8). In Tonga the crown owns all land; it is then divided into hereditary estates (tofi'a) held by nobles as primary tenants. The estates are divided into bush allotments ('api tukuhau) and town allotments ('api kolo) and commoners hold these as final tenants. Legally all male taxpayers enjoy the right to one allotment of each type, but in fact a large number of men have no registered allotments. The 1966 Census shows that 57.8 percent of the males over fifteen years of age were without land (Fiefia 1968: 30). The fact that there is insufficient land for all males to have an allotment of 8-$^{1}/4$ acres will mean that as population increases the number of landless will increase. [426] At present most peasants have access to land not through their legal rights but through sharing land with kinsmen or friends who have been able to obtain their allotments.

Tongan Society

161 Tonga's population in 1970 was estimated to be 87,406 (Tu'ipelehake 1970: 10). [162] This population is relatively homogeneous with less than 1 percent of the population being of nationalities other than Tongan. 563 These non-Tongan components consist primarily of Europeans from throughout the British Commonwealth who are in the Kingdom as administrators and teachers, and a small population of Indians who are occupied in the commercial sector.

TABLE 4

Religious Denominations for Tongan Population 1966*

795
162

Denomination	Frequency	Frequency in Percent
Free Wesleyan	38,147	50
Roman Catholic	12,042	16
Free Church of Tonga	11,006	15
Church of Tonga	6,936	9
Latter Day Saints	5,344	7
Seven Day Adventist	1,358	2
Church of England	697	1
Total	75,530	100

* Adapted from Table B, page 24 of Report on the Results of the 1966 Census.

368 Besides dwellings and the attendant secondary buildings, Puke has
366 a church, a town building, a kindergarten, a clinic and a store. All
except the last are grouped on a small piece of land donated by the
noble for community purposes. The store is located next to the house
of the store owner.

491 An unsurfaced road connects the village with the main road and
494 buses traveling the main road are usually the only form of motor trans-
365 port used by the villagers. A power line runs beside the main road but
no feeder line has been extended to Puke and there is no other source
312 of electrical power. The major sources of water are rain catchment and
storage in brick and cement cisterns. There are also a few hand-dug
wells from which water is obtained by rope and bucket.

Village Demography

162 Village population in 1971 was 261 persons living in 42 households.
[592] Table 5[A] describes the population by age and sex. The population has
(166) grown considerably since 1955 due largely to migration from more remote
[161] islands of Tonga (See Table 6[B] for origin of household heads and Table 7[C]
369 for crude growth rates). Puke, being close to Nuku'alofa, has experi-
166 enced the effects of rural-to-urban migration in the archipelago (See
Walsh 1969: 95-98). Recent immigrants have come to Puke because it pro-
vides easy access to services centered in Nuku'alofa not available in
most of the more rural locales. Opportunity for education and better
health care are frequently given as reasons for wishing to live close
166 to Nuku'alofa. Informants also mention the greater availability of

A, B, C [See pp. 27-29 respectively--Analyst]

[TEXT CONTINUED ON PAGE 30]

TABLE 5

Village Pcpulation by Age and Sex*

● 162

Age	Males	Females	Persons	Percent
0-10	72	43	115	44.1
11-20	36	21	57	21.8
21-30	10	14	24	9.2
31-40	14	16	30	11.5
41-50	14	7	21	8.0
51-60	2	3	5	1.9
61-70	5	2	7	2.7
71-80	1	0	1	.4
81-90	0	0	0	---
91-100	1	0	1	.4
Total	155	106	261	100.0

---

* Figures based on a January 1971 census by author.

TABLE 6

Place of Birth for Village Household Heads*

592
166
162

Location	Frequency	Frequency in Percent
Puke	7	16.7
Other Village in Tongatapu Group	18	42.8
Village in Ha'apai Group	4	9.5
Village in Vava'u Group	6	14.3
Niuatoputapu	7	16.7
Total	42	100.0

* Figures based on a January 1971 census by author.

TABLE 7

Population Growth of Puke Village

161
● 162
592

Year	Number of Households	Number of Persons	$\bar{X}$ Persons per Households
1956*	19	91	4.8
1966**	30	198	6.6
1971***	42	261	6.2

* From 1956 Government Census
** From 1966 Government Census
*** From January 1971 census by author

TABLE 9

163
162
597

Age Distribution of Biological Mothers and Adopting Mothers*

Age in Years	*Percent Biological Mothers*	*Percent Adopting Mothers*
16-20	11	5
21-25	23	7
26-30	26	8
31-35	18	14
36-40	12	16
41-45	5	11
46-50	5	9
51-55	0	11
56-60	0	4
61-65	0	11
66-70	0	3
71-75	0	1
Total	100	100

* Figures based on eighty-one adoptions.

602 431 437 183 597 [121] not conform to the direction of flow specified by the conscious model of kinship reciprocity. It is safe to say that knowledge of the conscious model does not allow correct prediction of exchange behavior. This means, then, that the conscious model considered alone improperly discribes kinship reciprocity.

602 431 437 593 What can the behavioral pattern tell us about kinship that is in contradistinction to the conscious model and what can it tell us about kinship? The behavioral pattern indicates that a large amount of exchange is taking place between persons related as parent and child or as siblings. In the sample of exchanges of goods 50 percent of the transactions involved principals who stood in one of these two relationships. [597] In the sample of adoptions 89 percent of all transactions were carried out between principals who were either parent and child or siblings. As discussed here the classificatory relationships are not included; therefore, a very small proportion of kinsmen are accounting for a high proportion of exchanges.

This relativly small group of kinsmen would roughly be about nine individuals. [162] [594] I am calculating this figure by considering that Tongan women tend to have seven children (Fiefia 1968: 18), and adding to that the two parents each individual would have, the average nuclear family would be nine persons. This is the group within which there is a high level of exchange. For each ego nine kinsmen would be at maximum about 10 percent of his total kinsmen, considering that each ego knows of and acknowledges kinship with at least ninety to one hundred kinsmen.

592 594 As described in Chapter III the Tongan household usually consists

FOOTNOTES

Notes for Chapter I

161 [1] A numerical estimate of the indigenous Tongan population for
the year 1800 would fall within the range of fifteen to twenty thousand.
The most frequently cited figure is that of 18,500 recorded by
Wilkes in 1840 from the Wesleyan missionaries (1845, III: 29), but
this is greatly at odds with a Wesleyan estimate of 50,000 for 1847
162 (Lawry 1850: 245; Vide McArthur 1967: 73). An intriguing population
total for Tongatapu alone was made by an Australian sea captain in
1824: he placed the population of the main island at 34,800 (Beveridge
114 1824 Letter). Unfortunately, I believe the captain had less than the
goals of a preliminary census taker at heart but more the eye of a
businessman cum sea captain who was trying to convince the Wesleyan
missionaries at Sydney, Australia, with whom he was acquainted, of the
tremendous potential sales market for material goods and Christianity
in the archipelago.

797 [2] This list is based on Minns (1930; 1933). Missionaries who only
passed through the archipelago are not included in this list. This includes
Hazlewood, who was in Tonga in 1844 and Thompson who was in
127 Tonga in 1850. A comparison of the list with the manuscript bibliography
of this work will partially indicate the number of manuscript
[113] material which have survived into this Century. Many of these Wesleyan
missionaries had letters in the Mitchell Library microfilm series
FM4/1417 to FM4/1421. These letters were read in the course of the
research but unless they were specifically cited in this presentation,
these individual letters do not appear in this bibliography.

121 [3] The Swanton volume is an excellent example of ethnohistory contributing to ethnographic reconstruction (Bushnell) and culture history (Fenton).

[4] The historical aspect of Pacific culture was given impetus by the establishment in 1950 of the Department of Pacific History at the Australian National University, Canberra, Australia. Maude wrote that "the historical study of the Pacific Islands could be said to have commenced as an organized specialization within the general discipline of history" in 1950 (Maude 1968: xv). Even though "Pacific History" as an organized discipline began the movement to archival sources, the interest. of Pacific historians have not necessarily coincided with the interests of ethnohistorians; and even though Pacific historians have done extensive archival research, their published works do not delineate the historical method which they applied to their sources.

Laportea harveyi, Rhus taitensis, Alphitonia zizyphoides, Dysoxylum spp., 137
and other trees may reach considerable size. Tongatapu and 'Eua are the only [101]
permanently inhabited islands of the Tongatapu group.

The central, or Ha'apai, group is about 90 miles from Tongatapu. It in- 131
cludes the main islands of Lifuka, the former capital and site of the Chief's 101
Palace; Nomuka; Kao; Tofua; and a large number of smaller islands, many
of which now support no permanent inhabitants.

Vava'u, the largest and principal island of the Vava'u group, has an area 133
of approximately 35 square miles and reaches an altitude of about 150 meters
along the precipitous northern coast. Its surface is uneven and the southern, [504]
very irregularly and deeply indented coastline provides a beautiful and com- [361]
pletely land-locked harbor, where the principal town of Neiafu is situated. At
the northwestern part of the island is a lake of brackish water and nearby is a
rather large swamp of marshy area unique in the islands. Another, a large
central lake connected at one point with the sea during high water, is found
on the island of Nomuka in the Ha'apai group. Large crater lakes also occur
on Tofua and on Niuafo'ou. Ocean-going steamers are able to dock at Neiafu 504
in Vava'u and at Nuku'alofa on Tongatapu. Cutters and interisland boats can
reach a jetty at the village of Pangai on Lifuka Island in the Ha'apai group,
and it is possible for very small boats to make a landing at a makeshift dock
on 'Eua. And it is usually possible, in moderate seas, to get ashore from
canoes or other small boats on the other low coral islands. It is much more 504
difficult, however, to land on the volcanic islands of Tofua, Kao, Late, Niua- 133
fo'ou, or Tafahi where most of the coast is steep and abrupt and where pro-
tecting reefs are lacking or do not break the often strong wave action. These
islands can be reached only by canoe or small boat and under most favorable
weather conditions, or by swimming from larger boats which must stand well
off shore for safety.

The population of Tonga is nearly 50,000. It is heavily concentrated on 161
the islands of 'Eua, Tongatapu, Nomuka, Lifuka, and Vava'u and some of the 162
smaller adjacent islands. The volcanic islands of 'Ata, Tofua, Kao, Late, and
Niuafo'ou have few or no permanent inhabitants at the present time. The [731]
former population of about 1,300 on Niuafo'ou was evacuated after the dis- [166]
astrous volcanic eruption in 1946, and at present makes up a large part of the
population on 'Eua. (See figure 2.)

The more heavily populated islands show a high percentage of land utiliza- 137
tion, the indigenous plant species surviving only in occasional uncultivatable [311]
areas, usually near the sea. Everywhere grows a number of species of greater
or lesser usefulness presumably brought to the islands by the aborigines as
they arrived in Tonga from other islands. These species predominantly show
Asiatic, African, or Malaysian origin. A possible exception is the sweet potato,
and there is considerable question as to how it reached Polynesia. In this group
one may include that most useful of all plants for island peoples, the coconut.

121 that with the passing of one more generation little of this knowledge will survive in Polynesia.

[101] It is for this purpose—to record the uses of plants in folk-medicine—that I went to Tonga during the months of September through November, 1969.

The literature on diverse native floras and the medical uses of each plant is voluminous. The flora of Tonga, however, has never been
114 surveyed for this specific purpose. Strict botanical investigation on the islands began with Banks and Solander, who accompanied Captain Cook on his first voyage in 1769 (11). There have been numerous other collectors in the archipelago, and four comprehensive reports of the flora of Tonga have since been completed (32, 10, 4, 11).
127 *Plants of Tonga*, by T. G. Yuncker (32), stands as the basic reference upon which
114 this survey was based. Yuncker's carefully recorded list of native names was especially valuable.

The results of several ethnological and other first-person accounts have been utilized
114 in this paper (7, 17, 15). Although several interesting anthropological studies are recorded, information regarding Tongan medical practices is scarce.

121 Although it would be interesting to decipher slowly the conceptual structures underlying the mechanics of medical treatment in Tonga, I have attempted only to describe the techniques and practices that are still employed. It has become a question of salvaging the knowledge still remaining before it becomes too late to learn *anything* about traditional Tongan medicine.

101 The Tonga Archipelago is situated in the South Pacific Ocean between 15° and 23° South Latitude and 173° and 177° West Longitude. The islands are clustered in three main areas. The northern, central, and southern groups are known as the Vava'u, Ha'api, and Tongatapu groups, respectively. Scattered over 20,000 square miles of ocean, the land area of the more than 150 islands
[161] is about 269 square miles. Only 36 of these islands are inhabited, with a total population of 77,585 individuals (1966 census). More
101 than 48,000 are living in the Tongatapu
162 group. Tongatapu Island is the largest in this group, with an area of almost 100

[p. 424-A]

101 square miles. Nuku'alofa, with an approximate population of 15,000, is the largest city
162 in Tonga and the capital (14).

II. A Review of Medical Practices in Tonga

175 A fairly detailed description of medical practices in Tonga is found in *William*
114 *Mariner's Account of the Natives of the Tonga Islands* (17, pp. 240–273). This
177 account was related to J. Martin by William Mariner, who was shipwrecked somewhere in the archipelago in the early 1800's. The first Europeans to arrive in Tonga were missionaries sent out by the London Missionary Society in 1797.

757 Martin reports that around the year 1800 few plants were used in treating illness.
[753] Sickness was thought to originate from an outside force, and all remedies used by the Tongan were reasonably categorized by Martin into three groups: invocation, sacrifice, and external operations. When plant remedies were employed, they had no effect either upon the disease or the patient. Martin states that such remedies were held in "little esteem," for when the reigning king's daughter became seriously ill plant medicines were not considered (17).

752 Martin does refer, however, to the uses of three plants. To reduce opthalmic inflam-
278 mations, the juice of the *vi* (*Spondias dulcis*) was used. Following circumcision, the end of the penis was wrapped in the leaf of *gnata'i* (*Erythrina* spp.?). And the ulcerated sores of venereal diseases were treated with powder of turmeric from the fleshy rootstock of *Curcuma longa.*

757 Martin states that "the idea of giving
177 (plant) infusions was first taken from the natives of the Fiji Islands." The Tongan
177 also learned the practice of surgery in Fiji, where constant wars afforded great oppor-
752 tunities for practicing this art. The three most important operations then practiced in Tonga were *cawso,* or paracentesis thoracis (drainage of fluid from the chest cavity); *tocolosi,* or an operation to cure tetanus; and *broca,* or castration.

755 Charms and amulets were not employed in ceremonies for the patient.
[782] Sacrifices were common, and horrors such as *tootoo-*

79: Lātūkefu H,I,M-4,5 (1964-1965) 1974
(1822-1875)
OU9 Tonga OU9

1 *Traditional Polity in Tonga*

Near the centre of the 70,000,000 square miles of the Pacific 131 Ocean lies the smallest kingdom in the world, Tonga. Situated 1,100 miles north-east of New Zealand and 420 miles south-east of Fiji, it consists of more than 150 small islands which are scattered between 15° and 23° south latitude and 173° and 177° west longitude. The kingdom is divided into three main island groups, Tongatapu to the south, Ha'apai in the centre, and Vava'u to the north. The total area of the whole group is 269 square [361] miles, though only thirty-six of the islands are inhabited by the population which numbered about 90,000 in 1972, 97.5 per cent [161] of whom are native and belong to the Polynesian race. Using [162] oral traditions, particularly genealogies, ethnohistorians have concluded that the ancestors of the present inhabitants of Tonga 714 arrived at the group from Samoa in A.D.950 (Gifford 1929:50; Wood 1932:6). However, recent archaeological and linguistic evidence suggests that Tonga has been occupied for a much longer period and was settled probably from the north-west rather than from Samoa (see Green 1966:6-38; Groube 1971:278-316).

Long before the coming of the Wesleyan missionaries to Tonga 642 there was a highly organised socio-political system somewhat similar to that found in other Polynesian societies, based on the rule of the chiefs. However, Tonga was unique in Polynesia, and 643 in the Pacific as a whole, in that it had a traditional monarchical system under the headship of the Tu'i Tonga. In fact, the institution of Tu'i Tonga had developed through the years into something similar to the Dalai Lama of Tibet and the Mikado of Japan.

Originally, the whole of Tonga was under the sovereignty of [173] the Tu'i Tonga. The first Tu'i Tonga, 'Aho'eitu, who began his rule in Tonga in about A.D.950, was believed to be the son of Tangaloa, the god of the sky, and an earthly mother (Gifford 1924:25, 38; Wood 1932:5) thereby encompassing in his person

If there is no widow the land passes to the deceased holder's 423 eldest son, or if he is also dead to his eldest son, and if there is 428 no male heir through the eldest son then the land passes to the next eldest son or his male heir and so on. If there is no heir [562] through the sons an unmarried daughter may hold the land for life, or until she marries or is proved in the Land Court to have committed fornication. Several unmarried daughters may hold jointly. If there are no daughters the succession passes to the deceased holder's brothers and their sons, or failing these, to the brothers of the deceased holder's father and their male heirs. No person may inherit land if he already holds an allotment of the same kind as that to which he is entitled as heir, but where the heir is a son or grandson of the deceased holder and already has land he may choose between his own allotment and the inherited allotment. Should there be no heirs the land reverts to the estate-holder or the government, depending on the type of estate. Only [848] legitimate sons may inherit, and only in very rare cases is an allotment divided between two heirs. These rules of inheritance [183] do not necessarily follow Tongan custom exactly. For instance, succession to an allotment cannot now be traced through a female, and the son of a daughter of a deceased holder has no claim to the land of his mother's father, although succession to an hereditary estate can be claimed through females. In practice, however, where there are no heirs through males the Minister and estate-holders usually allocate the land to the nearest other relative. A study of land acquisition in two villages showed that in one an allotment had passed from a widow to her brother's son, there being no claimant from her husband's family, while in the other, six of the forty-eight landholders interviewed had gained their allotments from their mothers' relatives.

With large families common it is obvious that many men will 423 not be able to inherit land, and for them the only way of obtaining 425 an allotment is to acquire one that is vacant. This has not been easy, however, over the last two or more decades. In the 423 more densely populated parts of Tonga all allotments have been 161 occupied for some time, while in other districts the survey and subdivision of the land has not kept pace with the growing number of taxpayers. Up till 1957 only 2,564 eight-and-a-quarter- [162] acre allotments had been marked out, although there were then about 12,000 taxpayers, and in the less densely settled areas where allotments should have been available much of the land remained in customary holdings of about ten to thirty acres (similar to those shown in the 1910 map for Niutoua in Figure 1).A

A [See Category 423, p. 109--Analyst.]

427

423 Eviction from a registered allotment is rare, and provided a
425 landholder complies with the requirements of the law he has
complete security of tenure, for all cases for eviction must be
heard by the Land Court. Eviction may be for failure to pay
423 rent, for not maintaining the allotment in the average state of
425 cultivation for tax allotments in the district, for abandoning the
686 allotment or for not planting or tending the 200 coconut palms
required by law. In recent years cases for eviction have only been
427 brought on the grounds of failure to pay rent, and as the law
gives landholders the opportunity to pay within three months
of the judgment very few people have actually lost their land.
423 Security of tenure is therefore very much greater under the pre-
sent system than it was in the past. Moreover, the Land Court
425 has on several occasions held that registration is not the only
[178] test of ownership (Hunter 1963:104-6 and 121-5), and where a
person occupies unregistered land which has been held by his
family by customary right for some time his position is fairly
strong. It is only those who have been given permission to use
land to which they have no customary right, with the possibility
of registration later, whose tenure is particularly insecure and
who therefore most need to keep the favour of the estate-holder.

THE DISTRIBUTION OF LAND

423 The 1966 census, the first in which a question on land ownership
● 162 was included, revealed that only forty-two per cent of taxpayers
actually had an allotment, with the proportion varying from
thirty-nine per cent in Tongatapu to forty-six per cent in
423 Vava'u and forty-eight per cent in Ha'apai.[6] A more detailed
indication of the distribution of land in particular villages is
592 given in Table 1, which presents the results of village studies
carried out in recent years and shows the percentage of house-
holds and (for six of the villages) of taxpayers, according to the
acreage of land held. It should be noted that these households
[178] differ in composition from those of the past; today an extended
[596] family grouping is only occasionally found, particularly in
Tongatapu, and most households consist of a nuclear family or
[594] a nuclear family and a few unmarried relatives. The figures in
Table 1, together with census data, show that the distribution
of land between both households and taxpayers is distinctly un-
even, and differs markedly from the pattern which should result
423 from the provisions of the Land Act. In only one village did
592 over half the taxpayers have their legal entitlement of eight and

a quarter acres of land. In most villages a large proportion of households and taxpayers had no land at all, and in some a number of taxpayers held more than eight acres. The pattern of land distribution also varied from village to village. 423 592

Table 1: Some Examples of Land Distribution

423 592 162 ●

Village		0	1-3	4-6	7-9	10-12	13-15	16-18	19 and over
		Percentage distribution of households and taxpayers by acreage of land held*							
Ha'avakatolo	H†	18	9	9	27	16	–	6	15
1962	T‡	45	4	9	22	7	4	5	4
Ha'akame	H	31	–	2	49	2	2	7	7
1962	T	55	–	1	37	3	1	–	3
Nukunuku	H	30	–	1	51	2	1	14	1
1960	T	51	–	1	44	1	–	3	–
Vaini	H	36	–	–	32	–	–	11	21
1962	T	41	–	–	29	–	–	3	7
Niutoua	H	3	–	–	66	–	–	31	–
1962	T	18	–	–	82	–	–	–	–
Ha'ateiho 1957	H	25	–	–	58	–	–	10	7
'Uiha 1952	H	9	10	41	24	9	4	2	1
Ha'afeva	H	43	10	28	12	7	–	–	–
1966	T	61	8	29	2	–	–	–	–

* to the nearest acre

† percentage of households

‡ percentage of taxpayers

Sources: Ha'avakatolo, Ha'akame, Vaini, Niutoua and Ha'afeva, field survey by writer; Nukunuku, field survey by R. G. Crocombe; Ha'ateiho, Nayacakalou 1959:104; 'Uiha, Koch 1955:120-1. The figures for Vaini, Niutoua and Ha'afeva are based on sample surveys.

The major reasons for these variations in land distribution and for the lack of correspondence between law and practice in the holding of land are the uneven distribution of population (an unevenness which does not correspond to variations in agricultural productivity), the incomplete subdivision and allocation of allotments discussed above, and the fact that there are now more taxpayers than allotments, a problem which will be discussed below. 423 182

In areas where population densities are about 500 persons per square mile and over (as in western Tongatapu, around Nuku'alofa, in most of Ha'apai and in south-eastern Vava'u) most holdings have for some time been less than eight acres, and even so there are many more men entitled to land than there are allotments for them to hold. In these districts no attempt [161]

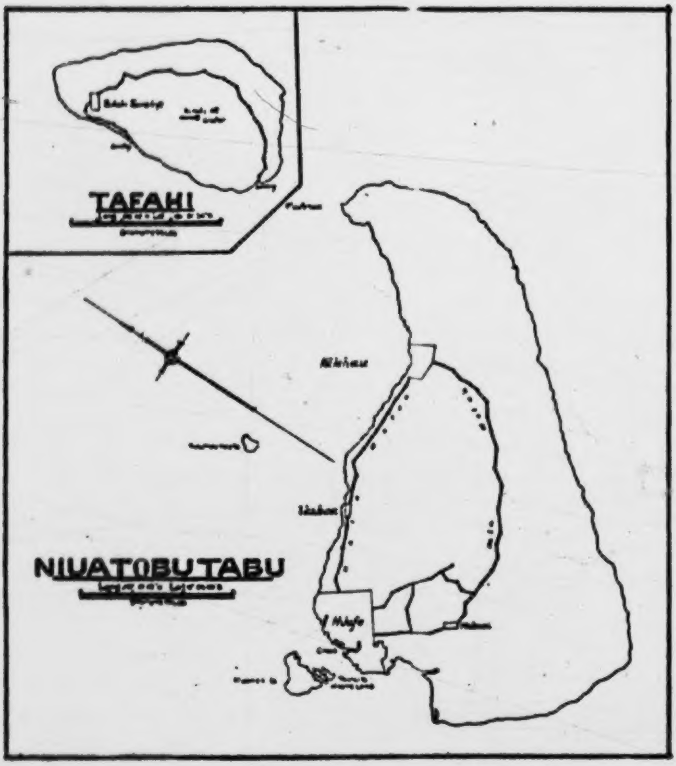
423 multiple ownership found elsewhere; and it has not tied areas
182 of land to particular social groups. It has prevented land from
[427] passing into foreign ownership and has limited the area taken
up in foreign-held leases, and at the same time has prevented
[565] the dispossession of the commoners and the over-concentration
of land rights in the hands of the chiefs.[8] Tonga now also has
423 a nearly complete survey of all agricultural holdings, as well as
a reasonably efficient records system for land grants, transfers
and rent payments.

[178] Furthermore, many of the weaknesses discussed in previous
sections have resulted not so much from the Land Act itself but
from its inadequate application, and in the past few years a great
deal has at last been done to ensure a better distribution of land.
423 A final strong argument in favour of the system is the remarkably small number of disputes. During the five-year period 1952-6
691 a total of 178 cases came before the Land Court, but 141 of
these were over the non-payment of rent; there were only twenty-three cases involving a disputed claim to a tax or town allotment,
the great majority of which were won by the defendant, and
none involving a dispute over an allotment boundary.

THE FUTURE

000 Some changes in the basic principles of the land tenure system,
however, will be essential if it is to meet the problems raised
[423] by a rapidly-growing population. The total number of tax allotments so far marked out is about 12,140 if every two allotments
[162] of less than four acres are counted as one (Maude 1965:166, 181),
yet there are already about 20,000 males aged sixteen and over
legally entitled to land, and some of the present allotments are
held by widows or (as with some holdings recently allocated) by
boys under sixteen. By 1980 the number of taxpayers entitled
to land is likely to be about 33,000, nearly treble the number
of existing allotments.[9]

In assessing the changes that might be made, two points need
to be kept in mind. One is the need to avoid potentially serious
social, economic and perhaps political problems that would result
from a large proportion of the male population being without
423 land and without any hope of acquiring land. Already at least
eighty-four per cent of taxpayers in the age group 20-24 are
162 without a tax allotment, while in the age groups 25-29 and 30-34
the corresponding proportions are seventy-five per cent and sixty-
000 three per cent respectively. The opportunities for developing



102

(9) NIUA TOBUTABU is 167 miles north of Vava'u. The island 133
may be classed as of volcanic formation though there is no sign of any [131]
recent activity there. Niua Tobutabu is generally flat but rises to a hill
350 feet high in the centre. The area is nearly six square miles, and there [131]
are four villages with a population of 743. The island is subject to hurri- [162]
canes, the last severe one having taken place on 26th December, 1930.
The rhinoceros beetle which entered from Samoa threatened to destroy 731
the coconuts within recent years, but it has now been exterminated. [136]
There are two large stones on the island, called Fakafafa, said by a legend
to have been placed there by Maui. A spring with its small stream, 133
Niutoua, is an unusual sight in Tonga. The first Englishman who came
to Tonga, Captain Wallis, in 1767, named Niua Tobutabu Keppel and 175
Tafahi Boscawen, after two English admirals, and Keppel is the name 103
still often used by Europeans for the former island.

(10) TAFAHI is an extinct volcano with an elevation of 2,000 133
feet, a cone-shaped and very rocky island containing one small village.
Tafahi was the first part of the whole group seen by Europeans, the Dutch 175
voyagers, Schouten and Lemaire, in 1616. They called Tafahi Cocos
Island because of its trees, and Niua Tobutabu Traitors' Island because [103]
of the treacherous attack made on them by Ma'atu and his people. [648]

Disastrous hurricanes frequently occur, and the island has been 731
ravaged as recently as December, 1930, February, 1931, and March, 1932.
During the hurricane season Niua Fo'ou is not visited by small craft. [132]
Though the island has been so repeatedly devastated by eruptions and
storms, and its condition seems to be more dangerous than that, for [166]
instance, of the uninhabited large island of Tofua, still there is no intention
of abandoning it for a safer home closer to the main islands of the group.

Its present population is 1,291. The inhabitants are a distinct 162
type, with local variations of the Tongan language due to ancient contact 197
with Samoa and Uvea, but more intercourse with the rest of the Tongan
group is causing these old words to fall into comparative disuse.

The "Tin-can Mail" is Niua Fo'ou's claim to distinction. As the 205
harbour at Agaha is inconvenient, and the sea is generally too rough for
canoes, the mail is taken by swimmers to the steamer which passes from
Samoa to Fiji. The outgoing mail is generally wrapped in oiled paper [415]
and tied to sticks, and the inward mail is brought back from the steamer
in a sealed tin-can.

THE CHIEF CORAL ISLANDS, WITH SCENIC AND HISTORIC PLACES.

133
131
←

'EUA. This island, which is of great age geologically, reaches a height of 1,078 feet, and has an area of 33 square miles. Although it is as large as Vava'u and contains fertile soil in abundance, its population of 348 is most disproportionate. Its inadequate harbour at 'Ohonua and the sometimes dangerous channel between the island and Togatabu, though disadvantageous to the progress of 'Eua, do not really explain the decline in its population; this is due rather to the proximity of Nuku'alofa with its attractions. Considering that many small islands in Ha'abai support numerous taxpayers who have no allotments, the neglect of 'Eua is regrettable.

162
134
←

162
166
←

102
361
133
→

311
←

'Eua was called Middelburg by its discoverer, Tasman, and Cook had a high opinion of its beauty and fertility. This island is unique in several respects. It has several small creeks which rise from springs in the hillsides and descend to the western shore;

103
175
←

133
136
←

[TEXT CONTINUED ON PAGE 79]

133
and mobs of untended horses roam through the island. It contains varied [136]
scenery, valleys, and precipitous cliffs lining the eastern coast.

TOGATABU. This name (Sacred Tonga), as well as the others 361
used by the people (Great Tonga and Chiefly Tonga), attests the impor- [103]
tance of the largest island in the minds of generations of Tongans. From [174]
the foundation of Tonga to the present it has been the residence of the
kings and the centre of religious and social life, and modern investigation
has confirmed the native tradition that Togatabu was settled before
Ha'abai and Vava'u. The island is 99 square miles in extent, with its 131
extreme length 18½ miles and greatest breadth 9 miles. The southern
coast is rather higher than the northern, where the capital, Nuku'alofa, 133
is situated opposite the only openings in the reef which surrounds the 361
island; but Togatabu generally is low, except in the east where the land
rises to 270 feet. There are three main roads traversing the island from 491
west to east and several cross-roads. The present population is 12,357,
of whom 11,660 are pure Tongans. 162

Nuku'alofa is the capital, the residence of the sovereign, and the 633
centre of government and trade for the whole group. The Palace and
Royal Chapel are conspicuous buildings; and the royal dais in the chapel 368
is finely carved. The tombs of the present line of kings are at Mala'e- [764]
kula, in the centre of the town. Behind the British Consulate is a hill
(Zion), the site of the old fort described by Mariner.

Mu'a, which consists of two villages, Tatakamotoga and Labaha, 361
was the ancient capital; the kings of the Tu'i Toga line after Tu'itatui [643]
resided at Labaha, as also did the Tu'i Ha'atakalaua, and the southern
village of Tatakamotoga belonged to the Tu'i Kanokubolu. In Mu'a [696]
there was also a renowned enclosure, Fanakava, which was a sanctuary
for refugees from justice. The most remarkable feature of the Mu'a 764
district is the series of 28 tombs (lagi) of the ancient kings. Each of these
is a rectangular structure, covering as much as three-fourths of an acre, [368]
with from three to five terraces in pyramidal form, built of blocks of stone
the largest of which weigh 30 tons each. Many of these tombs are well-preserved and easily accessible, especially the Baebae of Tele'a, whose smooth surfaces and L-shaped corner-stones have won the admiration of experts. Such striking examples of the skill of ancient Tongan stonemasons afford one of the finest sights in the South Seas.

At the extreme east of the island, at Heketa near Niutoua, there 349
is situated the famous trilithon known as the Ha'amoga-'a-Maui. This
was built by the Tu'i Toga, Tu'itatui, about the year 1200, probably as 172
a gateway. The upright stones are 17 feet high, and the cross-piece is
19 feet in length. Nearby are the stone where Tu'itatui sat, the Maka [764]
Fakinaga, and two tombs from the same period.

The remains of "Captain Cook's tree," called Malumalu 'o Fulilagi 137
by the people, may be seen at Alaki. It was here that Cook was enter- 648
tained in 1777 when he visited the Tu'i Toga and saw the presentation of
first-fruits.

Stalactite caves near Haveluliku on the southern coast, like those 133
found in other parts of Tonga, seem to have been used for burials in ancient 764
times.

Ha‘ateiho is the place where three London Missionary Society 648
missionaries were killed in 1799. At Bea may be seen the spot where [797]
Captain Croker was killed and three naval guns were captured in 1840.

There is a good example of an old fort in fair preservation at Hule, 712
near Nukunuku. The most remarkable of the numerous trenches of the
island is known as the Keli-‘a-Belehake, which extends from Vaotu‘u to [173]
Nukunuku, Te‘ekiu, Masilamea, and back to the southern coast at Fahefa ;
tradition states that this was actually dug in a single night during a war
between the men of Hahake and those of Hihifo led by Vaha‘i, at some
undetermined time probably in the early 19th century. The name of a 103
hamlet, ‘Umutagata, also in the western district, recalls a rare instance 266
of human cremation and cannibalism. 764

At Kolovai there is the enclosure where the former Tu‘i Kanokubolu were invested with office ; a piece of the koka tree under which these 643
kings sat has been placed in the modern coronation chair at Nuku‘alofa. [764]
The tombs of these kings are also at Kolovai. This village is well-known
to tourists as a sanctuary for great numbers of flying-foxes. 136

Houma, on the south-west coast, is noted for the blow-holes which 133
extend along the cliffs for a considerable distance.

In the extreme north-west of the island, at Ha‘atafu, a monument 648
stands to mark the landing-place of the first Wesleyan missionaries (1826). [211]
Tasman in 1643 and Cook in 1773 also landed nearby.

Navigation lights now stand at Ha‘atafu, Nuku‘alofa and Malinoa, 502
an island north of Nuku‘alofa. The quarantine station is situated at
Makaha‘a, another island off Nuku‘alofa. 504

Ancient stone-quarries are to be seen at Mototabu and Bagaimotu,
small islands not far from Nuku‘alofa. It seems more than probable 316
that the stones used in the great tombs (lagi) at Mu‘a and elsewhere were 174
cut at these places, and certainly not at Uvea and other distant islands
to which old native traditions refer.

HA‘ABAI. It is considered that this name is derived from Savai‘i, 103
the island in Samoa from which the ancient Tongans probably came.
Ha‘abai is a scattered archipelago of small islands, the total area of which 133
is less than that of ‘Eua, if the uninhabited volcanic islands of Tofua and 131
Kao are excluded. Yet these islets support a population of 6,410, most
of whom have small tax-allotments or none at all, and despite the difficulties of getting a livelihood—difficulties which hurricanes and droughts 162 311
have increased in recent years—the number of people who have gone to
take up land in Togatabu and Vava‘u is not considerable. The people 505
of Ha‘abai have always been renowned as skilful navigators and fishermen. 226

The Governor of Ha‘abai resides at Bagai, Lifuka, which was also 634
the boyhood home and always the favourite residence of Tubou I. Cook
was entertained at a great festival and a plot was made against his life 175
on this island in 1777. Mariner's vessel, the "Port-au-Prince," was also
attacked here, and the cemetery of the murdered sailors is at Koulo, 648
Lifuka.

Uoleva, now uninhabited, has a remarkable number of pigeon-mounds used by chiefs in ancient times, also an old sunken road of unknown use extending through the island. 172

206 Wireless stations have been established at Nuku'alofa, Lifuka (Ha'abai), Vava'u, Niua Fo'ou and Niua Tobutabu ; only the first station has communication with other countries. There is also a telephone service at Nuku'alofa.

494
491 The advent of motor traffic has made the improvement of roads necessary, and these have been built with the only available stone, coral limestone.

VITAL STATISTICS, EDUCATION AND RELIGION.

161 The estimated population, full-blooded Tongans only, on 31st December, 1931, was 29,157. Tonga is one of the comparatively few Pacific Island groups where the population is steadily increasing. There is no justification for imagining that the population of Tonga has ever reached 30,000, but rather the indications are that, even in the most prosperous times before the coming of Europeans, it did not exceed 25,000. The present figures may therefore be taken as the highest level which the Tongan population has reached, and there is no fear that the country cannot support a population continuing to increase at the present rate for several decades.

162 Reference is sometimes made to Cook's statement that 10,000
175 people were present at the festival held in his honour at Togatabu, and
161 3,000 at Lifuka. Especially bearing in mind the visitors who would come from other islands for such a unique event, these figures certainly do not justify a belief in a greater population than the present. The land seemed
361 then to be better occupied as the people were spread out over their gar-
175 dens, there being no villages until the Civil War period.

Wilkes received an estimate from the missionaries in 1840, and
161 this may be compared with the Government statistics in this century,
[165] noting the effects of the pneumonic influenza epidemic in 1918–19 and the way in which the loss of 1,000 lives then has since been more than redeemed (these figures are for full-blooded Tongans only) :

1840	18,500 (excluding the two Niuas)
1900	20,019
1911	21,712
1917	24,245
1918	23,842
1919	22,689
1920	23,128
1924	25,109
1927	26,597
1929	27,660
1930	28,431
1931	29,157

161 The Police Census of 27th April, 1931, gives a total of 28,839,
162 comprising 27,700 Tongans (this involving a discrepancy with the estimate of the Registrar of Births and Deaths), 482 Europeans, 265 half-castes, 336 other Pacific Islanders, 56 foreigners, mostly Asiatics.

563 Racial inter-marriage is not so common at the present time ; nevertheless, a considerable proportion of those officially classed as "full-

blooded Tongans" have some admixture of foreign blood (mostly European), 563
and there is a danger that the number of these will continue to
increase.

The smallness of the country and the land-laws do not attract 563
Asiatics, and those who have entered the country in recent years are 167
mostly Japanese storekeepers and Indian tailors, saddlers and house-servants.

BIRTH-RATE. The birth-rate for 1931 was particularly high, 163
40.9 per 1,000 of the population. The average for the past ten years
is 36.95. This may be compared with the average in New Zealand 19.01, 000
Australia 22.19, and Fiji (1927 only) 32.53 per 1,000.

The illegitimate births, averaged over the past ten years, were 163
17.32 per cent. of the total number of births. Illegitimacy in Victoria, 848
for example, represents 4.80 per cent. 000

DEATH-RATE. Unfortunately, the death-rate is also high, 17.46 165
per 1,000 of the population in the period 1922-1931 but only 15.40 for
the last year. This compares favourably with Fiji (1927 only) 22.98, 000
Japan 21.2 and Italy 16.5 per 1,000, but it far exceeds the rate in some
other countries, such as England and Wales 12.2, Australia 9.4 and New
Zealand 8.5 per 1,000.

It is most regrettable that, though native treatment is forbidden 757
by law, it is practised everywhere, even within easy access of Government [656]
Medical Officers. Of the 432 deaths registered in 1931, 205 were certified
by medical officers, 228 had not been attended; nevertheless, this is [165]
better than in 1923, when 178 deaths were certified and 309 not attended.
The medical officers are gradually winning the confidence of the people, 759
and the return of qualified Native Medical Practitioners from the Central 757
Medical School, Suva, in 1933 should increase the acceptability of European
treatment among the Tongan people. 178

Some causes of death in recent years were :—Tuberculosis 23.5% 165
of the certified deaths, typhoid fever 11.1%, pneumonia 10.7%, influenza
1.3%. Malaria is unknown, yaws and filariasis are common but not 164
usually fatal, and leprosy is not common; cases of leprosy are sent to
Makogai, Fiji, where there are thirteen Tongan lepers at present.

Tuberculosis is undoubtedly the scourge of the group. The Medical 164
Department does its utmost especially with incipient cases, but it is
recognized that its efforts would be aided if the Tongans would seek
treatment and carry it out. Deaths from tuberculosis in Tonga average 165
annually 33 per 10,000 of the population*, as against 17.5 in France,
9.7 in England and Wales, and 5 per 10,000 in New Zealand.

* (This assumes that the proportion of tuberculosis as the cause of death in the cases of those uncertified was the same as for those certified.)

INFANT MORTALITY. The average number of deaths of infants
under 12 months for the last ten-year period stands at the alarming
figure of 119.09 per 1,000 births, but for the last five-year period the rate
was only 67.7 and 67 in 1931. This may be compared with England and 000
Wales 71, Australia 53, and New Zealand 38 per 1,000 births.

MARRIAGES. The marriage rate is 10.40 per 1,000 of the population, 162
as compared with 7.92 in Australia. The rate of divorces to [581]
marriages in the past ten years has been 1 in 9.05. [586]

EDUCATION. Primary education is free and compulsory to the 871
age of 14 years, and the number of illiterate Tongans is very small. There 872
are 73 Government Primary Schools with an enrolment of 3,016, and 40 162
Primary Schools controlled by the various Missions with an enrolment
of 2,958. Provision is made for the secondary education of boys by the 873
Government and the Free Wesleyan Church and Roman Catholic Church,
and for that of girls by these two Missions only. In recent years arrange- 562
ments have been made by the Government for the training of medical 874
students at the Central Medical School, Fiji, and also for higher education
on scholarships in Australia.

RELIGION. Government statistics (1931) show the following :— 795
Free Wesleyan Church of Tonga 16,711 ; Free Church of Tonga 4,679 ; 162
Church of Tonga 2,771 ; Roman Catholic Church 3,340 ; Church of England 311 ; Latter Day Saints 728 ; Seventh Day Adventists 232.

THE GOVERNMENT OF TONGA, LAW COURTS, ETC. 642

As defined by the Constitution of 1875, Tonga is a limited monarchy following the English system, and the government consists of (1) The Sovereign and the Privy Council, (2) The Cabinet, (3) The Parliament (Legislative Assembly).

THE PRIVY COUNCIL advises the Sovereign on affairs of State 645
and makes ordinances in the interval between Parliaments ; these ordin- 671
ances become laws if the following Parliament confirms them. Another very important duty of the Privy Council is that of preparing the Estimates of Revenue and Expenditure for the following year. Using the information supplied by the various Departments, the Privy Council calculates how much money it expects to receive from taxation, etc., and how much money may be spent in each Department in the following year. Having drawn up these Estimates, the Privy Council sends them to the Consul who has the right of veto over the expenditure of the Tonga Government, and, finally, they are sent to Parliament for approval. At present the members of the Privy Council are :—The Sovereign (President), the Speaker of Parliament (Vice-President), the Premier, the Minister of Lands, the Minister of Police, the Governors of Vava'u and Ha'abai, and two European members, the Chief Justice and the Treasurer. Members of the Privy Council are appointed by the Sovereign.

THE CABINET consists of the members of the Privy Council,
except the Sovereign and the Speaker of Parliament. The Premier is 647
the chairman of the Cabinet, which is really a committee of the Parlia-
ment to control the property of the Government, to make appointments 423
to the Public Service, and to transact such matters as deciding the terms on which leases of land may be granted.

PARLIAMENT meets each year about the end of June, its session 646
lasting about one month. Its members are :—The Speaker and members of the Cabinet, seven nobles elected by the 33 nobles of the Kingdom, and seven representatives elected by male taxpayers 21 years and over. Three of these representatives are elected by Togatabu and the two Niuas, two by Ha'abai, and two by Vava'u, and the seven nobles represent the nobles of those districts in the same proportion. Each section of the

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E.

A COMPLETE LIST OF THE ISLANDS AND VILLAGES OF TONGA.

NOTE. All islands are classed as of coral formation, except those marked (V) denoting volcanic origin.

The heights of the low islands are approximate only, as indicated from charts.

Particulars of population are from the Police Census of 27th April, 1931.

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
(1) 'ATA (V) [PYLSTAART].	1,165	560			
(2) SOUTHERN GROUP: TOGATABU AND 'EUA.					
'Eua	1,078	21,604	5		**348**
		(33.7 sq.m.)	'Ohonua	Government	193
			Houma	Royal Estate	37
			Bagai	Ve'ehala	31
			Kolomaile (Ha'atua)	Government	55
			Tufuvai	Government	32
Togatabu	270	63,516	60		**12,357**
		(99.2 sq.m.)	22 in the Eastern Division:		
			Niutoua	Government	141
			Afa	Government	64
			Kologa	Nuku	330
			Manuka	Government	38

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (CONTINUED).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
SOUTHERN GROUP: TOGATABU (continued).			Navutoka	Tugi	161
			Talafo'ou and Makauga	Lauaki Jioeli Bagia	235
			Nukuleka	Jioeli Bagia	103
			Hoi	Jioeli Bagia	125
			Talasiu	Tu'ilakeba	50
			Mu'a { Labaha	Jioeli Bagia	505
			Mu'a { Tatakamotoga	Tugi	575
			Alakifonua	Tu'ibelehake	164
			Hologa	Government	147
			Malabo	Luani	103
			Fua'amotu	Tugi	270
			Nakolo	Luani	89
			Ha'asini and Hamula	Government Jioeli Bagia	171
			Lavegatoga	Tugi	31
			Fatumu	Tugi	108
			Haveluliku	Tugi	29
			26 in the Central Division :		
			Vaini	Ma'afu	254
			Logoteme	Veikune	113
			Folaha	Government	210
			Nukuhetulu	Government	94
			Veitogo	Government	224
			Ha'ateiho	Tu'iha'ateiho	159
			Bea	Lavaka	167

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (CONTINUED).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
SOUTHERN GROUP: TOGATABU (continued).			Tokomololo	Ma'afu	
			and Fonogahina	Lasike	165
			Koloua	Government	
			and Tofoa	Government	76
			Haveluloto	Fielakeba	85
			Nuku'alofa { Kolofo'ou	Government	1,555
			Nuku'alofa { Kolomotu'a	Government	1,791
			Ma'ofaga	Fakafanua	633
			Hofoa	Government	129
			Buke	Fohe	50
			Fatai	Government	
			and Matafonua	Tu'ivakano	195
			Nukunuku	Tu'ivakano	382
			Vaotu'u	Tu'ivakano	175
			Lakeba	Lasike	92
			Houma	Vaea	427
			Ha'akame	Government	119
			Ha'alalo	Crown Prince	
			and Utulau	Crown Prince	156
			12 in the Western Division:		
			Matahau	Tu'ivakano	110
			Fahefa	Ve'ehala	
			and Ha'a'utu	Government	
			and Kala'au	Government	167
			Te'ekiu	Motu'abuaka	106
			Masilamea	Government	76

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (CONTINUED).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
SOUTHERN GROUP: TOGATABU (continued).			Fo'ui	Vaha'i	187
			Ha'avakatolo	'Ahome'e	139
			Kolovai	Ata	334
			'Ahau	Govt. and Lasike	134
			Kanokubolu (Neiafu)	Royal Estate	162
			Ha'atafu	Government	100
Nukunukumotu		326	Siesia	Government	26
'Eua Iki ('Eueiki)	180	260	'Eueiki	Government	76
Atata	93	128	Atata	Ata	50
Tufaka	61	4¼			
Alakibeau	60	2			
Bolo'a	77	12			
Malinoa	51	2			
Fafa	72	23			
Velitoa (2)	59	5			
'Onevai	54	25			
'Onevao	57	6¼			
Motutabu	74	33			
Makaha'a	65	9			
Monuafe		5			
Bagaimotu		33			
Manima	47	4			
'Oneata	87	14			
Mata'aho					
Kanatea		126			
Mo'ugatabu					
Gofonua					

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (CONTINUED).

Island.	*Height (in ft.).*	*Area (in. acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
SOUTHERN GROUP: TOGATABU (continued).					
'Atā		55			
Fukave		43			
Nuku		10			
Tau	30	5			
Toketoke					
Kalau	120	50			
(3) HUGA TOGA (V).	490	110			
HUGA HA'ABAI (V).	400	160			
(4) MIDDLE GROUP: HA'ABAI.					6,410
(A) VOLCANIC GROUP.					
Falcon Island (V) [Fonua Fo'ou]	365				
Tofua (V)	1,670	13,750 (21.4 sq.m.)			
Kao (V)	3,380	3,100 (4.8 sq.m.)			
(B) 'OTU TOLU GROUP.					
Telekitoga	53	110			
Telekiha'abai (Lalona)	67	70			
Telekivava'u	71	50			
(C) MU'OMU'A OR NOMUKA GROUP.					
Nomuka	166	1,763 (2.7 sq.m.)	Nomuka	Crown Prince	478

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (CONTINUED).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
MU'OMU'A OR NOMUKA GROUP (continued).					
Mago	141	130	Mago	Royal Estate	63
Fonoifua	67	40	Fonoifua	Tu'iafitu	31
Nomuka Iki	147	167			
Mago Iki	68				
Fetokobuga	57				
Tonumea	138	30			
Nukufaiau	58	3			
Muifuiva	10	1			
Kelefesia	123	30			
Tano'a	57	3			
Nukutula	18	20			
(D) SOUTHERN HA'ABAI: LULUGA OR WESTERN GROUP.					
Ha'afeva	100	500	Ha'afeva	Tu'uhetoka	375
Kotu	120	40	Kotu	Government	110
Tugua	120	375	Tugua	Tu'iha'ateiho	228
'O'ua	140	240	'O'ua	Government	142
Matuku	100	83	Matuku	Tu'iha'ateiho	80
Butubutua	12	3			
Teauba	125	50			
Fetoa	125	40			
Kolo	50				
Kito	60	3			

133
361
162
423
131

APPENDIX E (CONTINUED).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
SOUTHERN HA'ABAI: LULUGA OR WESTERN GROUP (continued).					
Foua	30	1			
Luanamo	75	6			
Fonuaika	65	5.			
Tokulu	15	3			
Kogaloto	20				
Fakahiku	65.	3			
Bebea	75				
Ono Iki	125				
Fono'imaka	6				
Lekeleka	60	30			
(E) NORTHERN HA'ABAI: HAHAKE OR EASTERN GROUP.					
Lifuka	100	2,825	Bagai	Royal Estate	844
		(4.4 sq.m.)	Togaleleka (Hihifo)	Government	607
			Holobeka	Tu'iafitu	104
			Koulo (Ha'atakalaua)	Government	196
Foa	100	3,310	Lotofoa	Royal Estate	308
		(5.1 sq.m.)	Fagale'ouga	Niukabu	138
			Fotua (Alakifonua)	Tu'ibelehake	175
			Faleloa	Tuita	286
Ha'ano	100	1,626	Lotoha'ano	Tu'iha'agana	296
		(2.5 sq.m.)	Muitoa	Tu'iha'agana	120
			Bukotala (Kanakana)	Tu'iha'agana	198
			Fakakakai	Government	358

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (Continued).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
Northern Ha'abai: Hahake or Eastern Group (continued).					
'Uiha	100	1,326 (2.07 sq.m.)	'Uiha	Malubo	488
			Felemea	Government	257
Lofaga	150	360	Lofaga	Crown Prince	252
Fotuha'a	200	280	Fotuha'a	Government	126
Mo'uga'one	100	285	Mo'uga'one	Government	150
Niniva	85	122			
Ofolaga	90	220			
Buhi	20				
Luahoko	45	3			
Nukunamo	50	78			
Uoleva	100	741			
Luagahu	40	15			
Tatafa	90	78			
Tofoga	40				
Limu	40	10			
Uonuku Hahake	50	120			
Uonuku Hihifo	50	25			
Meama	105	5			
Nukubule	60	8			
Hakau'ata	60				
Fatumanogi	10				

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (CONTINUED).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*		*Estate (Tofia).*	*Population.*
(5) **NORTHERN GROUP:**						
VAVA'U OR HA'AFULUHAO.						**7,643**
'Uta Vava'u	670	22,179		22		
		(34.6 sq.m.)	Neiafu		Government	1,610
			Falaleu		Government	198
			Fugamisi		Government	73
			Toula		Government	104
			Makave		Tu'iafitu	156
			Utui		'Ahome'e	73
			Magia		Government	44
			Houma		Government	128
			Ha'akio		Government	111
			Ta'anea		Vaha'i	176
			Ha'alaufuli		Afu	344
			Tu'anekivale		Government	225
			Mataika		Government	217
			Feletoa		Fulivai	208
			Leimatu'a		Fotu	465
			Hologa		Royal Estate	241
			Taoa		Crown Prince	164
			Vaimalo		Government	103
			Tefisi		Luani	
			and Ga'akau		Fakafanua	208
			Logomabu		Veikune	208
			Tu'anuku		Finau Ulukalala	257
Ovaka	190	320	Ovaka		Government	186

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (Continued).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
Northern Group: Vava'u or Ha'afuluhao (continued).					
Tauga	155	90	Tauga	Akau'ola	110
Huga	245	1,160	Huga	Fulivai	228
Nuababu	210	660	Nuababu	Royal Estate	103
			Matamaka	Royal Estate	74
Labe	130	99	Labe	Government	26
Bagaimotu	290	2,188	Bagai	Royal Estate	250
		(3.4 sq.m.)	Utulei	Royal Estate	104
Utugake	290	230	Utugake	Tuita	170
			Ga'unoho	Government	78
Kaba	345	1,475	Falevai		
		(2.3 sq.m.)	and Vakataumai	Fakatulolo	192
			Otea	Government	173
			Kaba	Government	152
Koloa	160	555	Koloa		
			and Holeva	Government	145
Okoa		85	Okoa	Tu'ilakeba	124
'Olo'ua		120	'Olo'ua	Government	45
Ofu	110	310	Ofu	Tu'ilakeba	170
Late (V)	1,700	4,300			
		(6.7 sq.m.)			
Maninita	55	7			
Taula	55	10			
Luaafuleheu	60	15			
Luahiabo	55	12			
Luaivaha	65	1			

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (CONTINUED).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate. (Tofia).*	*Population.*
NORTHERN GROUP: VAVA'U OR HA'AFULUHAO (continued).					
Fua'amotu	135	60			
Fonua'one'one	75	25			
Fatumaga	85				
'Eueiki	175	45			
'Euakafa	270	128			
Mu'omu'a	135	10			
Fagasito	60				
Ovalau	110	23			
Mo'unu	3	2			
Bau	75	3			
Ta'uta	135	3			
Gau	90	8			
Luatafito	40	2			
Fonuafo'ou	25				
Fonua'uga	25				
Katafaga	96				
Sisia	110	23¼			
Fonualei	80	3			
Fofoa	255	184			
Kalau	195	12			
Luamoko	230	34			
Luafatu	110	4			
Vaka'eitu	200	152			
Lagitau	130	20			
Tu'ugasika	225	17			

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (CONTINUED).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
NORTHERN GROUP: VAVA'U OR HA'AFULUHAO (continued).					
Foelifuka	125	64			
Foeata	125	25			
Lotuma	80	2			
Ava	165	128			
Luakaba	120	12			
Ota	200	52			
Nuku	60	8			
Faioa	140	65			
Tulie					
Kiato		4			
Mafana	135	128			
Umuna	145	128			
Kenutu	135	107			
Lolo	30	6			
Toku	86	150			
Fonualei (V)	600	465			
(6) NIUA TOBUTABU (V)					790
[KEPPEL].	350	3,697	Hihifo		
		(5.7 sq.m.)	and Matavai	Ma'atu	470
			Vaiboa	Tagiba and Ma'atu	181
			Falehau	Royal Estate	92
Hugaga					
Tāvili		139			
Hakautu'utu'u					

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

133
361
162
423
131

APPENDIX E (CONTINUED).

Island.	*Height (in ft.).*	*Area (in acres).*	*Villages.*	*Estate (Tofia).*	*Population.*
NIUATOBUTABU (continued).					
Tafahi (V) [Boscawen]	2,000	822	Tafahi	Government	47
(7) NIUA FO'OU (V).	588	12,422	9		1,291
		(19.4 sq.m.)	Agaha	Fotofili and Fujitu'a	213
			Mu'a	Fotofili	129
			Togamama'o	Government	141
			Saba'ata	Fujitu'a	127
			Mata'aho	Royal Estate	105
			Fata'ulua	Government	146
			Betani	Government	128
			Esia	Government	140
			Futu (now 'Alele'uta)	Tuita	162

87: Wood M,Y-4,5 (no date) 1932 OU9 Tonga OU9

APPENDIX F.

162
131
161

TOTALS OF AREA AND POPULATION.

		Area (sq. miles)	Population
(1)	'Ata (Pylstaart)	0.9	-
(2)	Southern Group : Togatabu, etc.	101.1	12,357
	'Eua	33.7	348
(3)	Huga Toga and Huga Ha'abai	0.4	-
(4)	Middle Group : Ha'abai	50.1	6,410
(5)	Northern Group : Vava'u	56.1	7,643
(6)	Niua Tobutabu and Tafahi	7.2	790
(7)	Niua Fo'ou	19.4	1,291
		268.9	28,839

000 **for self-identity.**

Population Characteristics

101 **Very little is known about the characteristics of the Tongan population before European contact except that the people were Polynesian culturally and physically.**

Population size

175 **Cook estimated at least 10,000 to 12,000 people**
162 **attended a dance in his honor on Tongatapu in 1777. Peron**
in 1796 estimated around 25,000 people were seen in canoes
175 **and along beaches of Tongatapu (Maude, 1965:26-27). Later**
161 **estimates of Tonga's pre-European contact population have**
[162] **been as high as 50,000 (Matoto, 1971:2). Maude (1965:26-27)**
estimates that the population in 1799, at the onset of the
period of civil disorder, was at least 30,000 for the
entire archipelago and 13,000 for Tongatapu.

161 **There is no evidence of any population loss until the**
beginning of the nineteenth century, when a decline began
161 **which lasted almost 100 years. The major causes of this**
165 **decline seem to have been the civil wars and numerous epi-**
669 **demics. The missionary John Williams (1837:308) wrote that**
until a few year before 1830 "the whole island was in a high
state of cultivation, until frequent wars, combined with
successive attacks of dysentery and other diseases, had so
fearfully reduced the populations." Other accounts by Vason

161 and Mariner attest to the fact that "many people, men, women
165 and children, were killed in the actual fighting, while
669 others apparently died from famines caused by the destruction of food crops and the lack of new planting" (Maude,
161 1965:45). Further evidence of this decline is a population
162 figure of 8,000 for Tongatapu and 18,500 for the entire archipelago (based on estimates made by missionaries on Tongatapu), which was reported by Wilkes in 1840 (Maude 1965: 26-27).

165 After the cessation of civil war in 1852, European diseases such as measles, whooping cough, influenza, and dysentery (to which the Tongans had little natural immunity) became the main cause of death. Heavy loss of life resulted from epidemics, which were common occurrences throughout the South Pacific during the nineteenth century. "The sickness (occurring sometime between 1812 and 1845) that was brought by a (Tongan) vessel from Fiji . . . . raged so badly in the three groups, Tonga, Ha'apai, and Vava'u (that) it is said that they were not able to carry the dead away and bury them" (Gifford, 1929:209). As a result of the measles epidemic which occurred in Nuku'alofa in 1893, "one twentieth of the population was carried off, and the remainder was so demoralized that it was threatened with famine" (Thompson,
161 1894:286). From an estimated population of 30,000 the Tongan population probably declined during the nineteenth century to below 20,000. The figure of 18,500 reported in

161
162

Table 6. Population of Tongatapu and Tonga, 1777-1971.

Year	Tongatapu	Tonga	Source
1777	10,000-12,000+	-	Estimate
1796	25,000+	-	Estimate
1800	13,000	30,000	Estimate
1840	8,000	18,500	Estimate
1852	-	20,000+	Estimate
1853	-	22,000	Estimate
1891	-	19,968	Census
1911	-	23,017	Census
1921	9,794	23,759	Census
1931	-	28,539	Census
1939	15,754	34,130	Census
1950	-	45,070	Estimate
1956	31,264	56,338	Census
1966	47,920	77,429	Census
1971	58,872	89,761	Estimate

Sources: 1777, 1796, 1800, 1840, 1853, 1911, 1950 (Maude, 1965; 26-27 and 46-47); 1852 (Matoto, 1971:9); 1891, 1956 (Toupouniua, 1958:1-17); 1921, 1966 (Fiefia, 1968:9); 1971 projections based on 1966 figures.

842 However, a 1970 study of "attitudes and practices in regard to fertility and its control" conducted by the University of Hawaii School of Public Health indicated that there are

Population Distribution

161 The distribution of population also has an effect
162 on the nature of the agricultural system. Since European
contact, there have been major Kingdom-wide changes in the
distribution of the population, as well as changes within
each island group.

161 Immigration from the outer islands has resulted in
162 a disproportionate growth of Tongatapu's population. Population
[166] figures from four censuses (Table 7) show that
whereas Tongatapu had just over 40 percent of the Kingdom's
population in 1921, it now has over 60 percent. From 1956
to 1966 population growth in the outer islands was less
than one-third that of Tongatapu. During these ten years,
population growth has been 76 percent in the capital city
of Nuku'alofa and environs; even in rural Tongatapu, the
growth rate of 43 percent is greater than that of the Kingdom
as a whole (Tupouniua, 1958:42-45; Fiefia, 1968:38-42).

166 Incentives for migration to Tongatapu and especially
369 to Nuku'alofa include: better educational and recreational
facilities; opportunities for wage labor; better transportation
and chances to go overseas; more developed network
for marketing agricultural products locally and overseas;
161 and the general aura and excitement of urban life. Regardless
162 of the motives for population redistribution, the
182 effect on Tongatapu's agriculture is considerable, and there
311 is an increased demand for land and a burgeoning landless
class on Tongatapu.

161
162

Table 7. Population of Tongatapu (including 'Atata and 'Eueiki), other islands, and Tonga.

Area	1921	1939	1956	1966
Tongatapu	9,794	15,754	31,264	47,920
Other Islands	13,965	18,376	25,574	29,509
Tonga	23,759	34,130	56,833	77,429

Sources: Tupouniua, 1958:41; Fiefia, 1968:9.

class on Tongatapu.

178 433 The local marketplace, Talamahu Market, is becoming increasingly important as a source of food for the non-agrarian sector of the population and as a source of cash for the agrarian sectors.

175 361 Settlement Patterns

At the time of European contact, the settlement pattern was reportedly of dispersed residences on individual [351] garden allotments in the bush. Tasman, in 1643, found that "each man lived in his own garden, the allotments being separated by reed fences" (Wood, 1945:15). Cook, in 1773, described Tongatapu as follows:

[487]

> The lanes or roads necessary for travelling are laid out in a judicious manner, as to open a free and easy communication from one part of the island to the other. Here are no town or villages; most of the houses are built in the plantations, with no other order than what conveniency requires (Gifford, 1929:5).

361 178 423 the bush) was also sharpened by legal definition in the
"Constitution of 1875" (Walsh, 1970:29-30).

361 369 Nuku'alofa became the center of Wesleyan missionary work in 1828; in 1845, King George Tupou I selected it as the site for his capital (Maude, 1965:63). Since that time Nuku'alofa, which is composed of three coalescent villages, Kolomotu'a (Old Town), Kolofo'ou (New Town), and Ma'ufanga, has been the religious, governmental, educational, commercial, economic, and cultural center of Tonga.

361 491 ● 162 Including the three villages of Nuku'alofa, there are
59 villages on Tongatapu, almost all situated on the road
which encircles the island. In 1966 the "urbanized" area
of Nuku'alofa with the satellite town of Haveluloto had a
population of 17,241; the next largest village is Mu'a
(which includes Tatakamotonga and Lapaha), the ancient
capital located in the Eastern District, with a population
of 3,502. The smallest village is Kala'au in the Southwest
with a population of 89; the median population of all
361 villages is 412.5 (based on 1966 census figures). Surrounding
each town is an area of bush allotments to which the
Tongan farmers commute. In some cases, however, especially
in the Fua'amotu-Pelehake area in East-Central Tongatapu,
individuals farmers do have permanent residences on the bush
361 659 423 allotments. In this particular area, the government has
attempted to re-eastablish a dispersed settlement pattern by
offering them single, larger allotments ranging from 12 and

361 one-eighth to 15 acres instead of the customary town and
659 bush allotment. The scheme has met with only moderate
423 success.

361 The shift from dispersed to nucleated settlement has
178 led to the transfer of many fruit trees and other specialty
241 crops, such as medicinal herbs, kava, and sugar cane, to the
dooryard gardens on the town allotments.

563 Ethnic Composition

Tonga, unlike most Pacific Island areas, has never had
[162] a large Asian or other foreign component. Census figures
show the Tongan component representing over 98 percent of
the total population and over 97 percent of the population
[423] on Tongatapu (Table 8). A few non-Tongans have leasehold
rights to land, but only Tongans have the legal right to
tenure on the traditional town and bush allotments to which
this study is directed.

162 Age-Sex Structure

[464] Like most countries with high population growth rates,
the Tongan population has a very high proportion of young
people, many of whom are not gainfully employed. In 1966,
60 percent of the population was under 21, slightly more
000 than in 1956. As these people begin families and look for
employment either as farmers or wage earners, more pressure
will come to bear on the present agricultural system.

571
602 Social Structure

183 Tongan social structure is permeated by countless

563 Table 8. Ethnic components of Tonga and Tongatapu (1966 only) population; and the relative increase.
162

	1939	1956	1966		Tonga
	Tonga	Tonga	Tongatapu	Tonga	1939-1966
	Pop.	Pop.	Pop.	Pop.	% increase
Tongans	32,862	55,156	46,818	76,121	+132
Europeans	400	277	364	402	+ 1
Part-Europeans	441	604	423	512	+ 16
All Others	427	801	315	394	- 8
TOTAL	34,130	56,838	47,920	77,429	-

Sources: Toupouniua, 1958:42; Fiefia, 1968:37-42.

571 602 183 social and kinship relationships and institutionalized procedures, which, if not fulfilled or adhered to, in the strictest Tongan sense, can result in loss of prestige, favor, or effectiveness within one's social or economic sphere. By fulfilling one's social obligations, or as Tongans say, by being faka-Tonga (of Tongan nature), an individual keeps on good terms with his family, his village, his pastor, the traditional ruling class, and the rest of the community group. 571 602 476 Consequently when he needs assistance in the form of labor, money, food for ceremonial occasions, or even land, if he has been faka-Tonga, other parties will be willing to fulfill their obligations to him. These social relationships are particularly important in Tonga,

423 Minister, into 56 4 1/8 acre (1.7 hectares) allotments; and
11 other 4 acre (1.6 hectares) allotments resulting from
subdivision of expired leasehold land southeast of Utulau.

423 Town allotments, which are supposed to be 2/5 acre
361 (0.2 hectares) in size, are located in the 59 town reserves
throughout Tongatapu (Figure 3).A Each of these town
reserves is subdivided into numerous town allotments or
[128] '*api kolo*. Figures 10 and 11 are examples of the sub-
division of the town reserves of Houma and Kolonga into
[127] individual town allotments ('*api kolo*). There is very
little information regarding the exact number and acreage
of town allotments on Tongatapu. Nevertheless, based on
figures in the *Report of the Lands and Survey Department*
(Government of Tonga, 1971a:Appendix I), there are probably
[114] between 4,000 and 5,000 town allotments. Hardaker (1971:25)
quotes a figure of over 13,000 town allotments for Tonga-
[162] tapu, but this seems unlikely considering that the total
number of households on Tongatapu, at the 1966 census, was
only just over 6,000. Most allotments are probably close
to the statutory size although there are many oversized and
undersized allotments.

423 The portions of hereditary estates which have been
311 reserved for the holders and their families comprise about
3,100 acres (1,255 hectares). These parcels are generally
used for food or commercial crops. In some cases, the land
has been put into plantations for the production of copra

A[See Category 361, p. 14--Analyst.]

[TEXT CONTINUED ON PAGE

423
311

The land reserved for government purposes includes some that is used agriculturally, such as lands of the government secondary school, Atele, in Ha'ateiho, the prison farm at Huatolitoli, and the Government Farm south of Vaini. The nature of the agricultural production differs considerably from that as practiced on the smaller bush allotments, and most of the land is not used in a traditional Tongan manner.

423

Table 10 summarizes land tenure on Tongatapu. Crown Land includes swamp and waste areas, shoreline and beaches, government departments, schools, airfields, and leases less than two acres in area. Using the estimated number of 4,000-5,000 town allotments and the average statutory acreage of 2/5 acres, town allotments would probably total 1,600 to 2,000 acres (650 to 810 hectares).

There remains the question of how effectively the system provides secure tenure to those Tongans who desire land for agriculture. Although the law states that each Tongan male, sixteen years of age or over, is entitled to both a bush and a town allotment, this is impossible.

In 1971, there were only 5,652 bush allotments, claimed or unclaimed, on the entire island of Tongatapu. Yet five years earlier at the time of the 1966 census, there were already 12,322 eligible male holders. In 1966, only 39 percent of the eligible males on Tongatapu had allotments. The percentage on other islands was somewhat higher,

[162]

423 might be better tabulated on the basis of the household,
592 the major economic and social unit. In the survey of 150
households throughout Tongatapu, it was found that 89
percent had some access to bush allotments (Table 12).
423 Because the survey was administered to households that were
592 located on town allotments, all sample households had
128 either permanent or temporary access to a town allotment
[125] (Table 13). If the survey had been administered on a
family or individual basis there would undoubtedly have
been a number of people without rights to town allotments.

162
423
[128]
Table 11. Number of eligible males with and without bush allotments (Nuku'alofa figures include Haveluloto; Tongatapu figures do not include 'Atata and 'Euaiki).

	With	%	Without	%	Not Stated	%	Total
Nuku'alofa	1328	32	2757	67	23	1	4108
Tongatapu	4774	39	7479	61	69	1	12322
Other Islands	3531	46	4074	53	47	1	7652
Tonga	8305	42	11553	58	116	1	19974

Source: 1966 Census:89-96.

423 In those villages outside of Nuku'alofa, only four out
592 of 105 households had no access to tax allotments. In
369 Nuku'lofa (Kolomotu'a, Kolofo'ou and Ma'ufanga), however,
12 our of 45 had no access to bush allotments (Table 12).

423 **Table 15. Class of tenure on town allotments held by sample households.**

Village	Registered	Un-Registered	Temporary	Rented	Total
Haveluliku	3	5	0	0	8
Fatumu	8	13	1	0	22
Kolonga	9	8	6	1	24
Houma	4	15	2	0	21
Kolovai	14	1	1	0	16
Ha'ateiho	10	11	1	1	23
Kolomotu'a	11	0	1	0	12
Kolofo'ou	19	3	1	2	25
Ma'ufanga	6	3	1	1	11
TOTAL	84	56	14	5	159

Economy

433 The Tongan economy is predominantly agricultural, with a secondary dependence on fishing and, more recently, tourism.

463 **Importance of Agriculture**

462 162 According to the 1966 census, 67 percent of males over 15 years of age were employed either directly or indirectly in agriculture (Table 16). and 81 percent of Tongan women over 15 years of age are occupied with domestic chores

162
463
462

Table 16. Number of economically active males and females over 15 years of age in specified occupations.

Industry	Males	Females
Agriculture	13,827	69
Commerce	180	173
Communication	334	7
Service	1,715	607
Manufacturing and processing	579	18
Government and administration	124	0
Domestic industry	33	16,447
Unclassified	3,974	2,732
TOTAL	20,766	20,053

Source: Fiefia,1968:72-74.

463 around their own households, including preparation of
462 agricultural crops and handicrafts, and working in dooryard
162 gardens or on the bush allotments.

463 A high percentage of Tongan males employed in agriculture is also shown by the survey of households conducted by the author in 1971 (Table 17). These data show a majority were full-time farmers and that another 15 percent had some other employment, such as a village storekeeper, part-time banana inspectors/or a lay preachers, but still considered themselves primarily farmers. Out of 149 households, there were 39 households with more than one full-time farmer (one household with five; two with four; eight
[461] with three; and 28 with two). Of the 36 heads of households who considered themselves full-time wage workers, 58 percent put in some time, ranging from 1 1/2 to 16 hours per week farming on their allotments. Of these 36 full-time wage earners, five did not own allotments.

262 Subsistence Needs

241 The Tongan diet continues to be largely dependent on staple and subsidiary crops grown on traditional garden
262 allotments. In a listing of the relative importance of
439 items in the diet (Table 18), only a few imported items
128 such as bread (made from imported ingredients), mutton,
[263] and canned fish rank high on the list. Imported luxury items used more for flavor than nutrition, such as canned fruits, gelatin desserts, ice cream, sugar, salt, and canned or dried milk,are not listed.

[1800-

Tongatapu. If Tahiti had proved an unsuitable field and if conditions in Tongatapu 175
were more favourable, he was instructed to take all the missionaries to Tongatapu 797
"as a refuge for the whole of our brethren".(5) Instead of being able to fulfil these instructions he found that the Mission in Tongatapu had ended in complete failure.

Vason, who had accompanied Finau 'Ulukalala to Vava'u after a lull in the fighting in Tongatapu, was able to get a passage on the same ship, *Royal Admiral*, when it called at Vava'u in August 1801. In England he sincerely repented of his apostasy and his participation in the savage conflicts in Tongatapu. Thenceforth he lived a quiet Christian life and was Governor of Nottingham Gaol for some years. During this time he wrote his *Authentic Narrative of Four Years' Existence at Tongatapu*,^ which narrated the experiences of the L.M.S. missionaries.

Conditions in Tonga deteriorated still further in the next few years, with 175
repeated attacks on Tongatapu and the destruction of plantations by Finau 669
'Uluakalala's marauding parties. Most of the people in that island lived in forts for safety, and practically no planting was done for fear of being ambushed in the gardens. The consequence was famine, more terrible than any known before [731]
these disastrous years. Famine raged in Ha'apai also. The cannibalism practised [266]
out of bravado during the fighting was extended even to the eating of the flesh of relatives, because of the desperate plight of the famine-stricken people. It has [165]
been estimated that more than one-fourth of the population of Tonga died in the period 1799-1820 as victims of war and famine. The early Wesleyan [161]
missionaries noted as an evidence of the depopulation of Tongatapu that females [162]
outnumbered males approximately two to one.

Footnotes

(1) Newbury, C. M., edition of John Davies, *History of the Tahitian Mission, 1799-1830*, Vol. I, p. xxix. 113

(2) Lovett, R., *History of the London Missionary Society, 1795-1895*, Vol. I, p.64.

(3) McKern, W. C., *Archaeology of Tonga*, p.122.

(4) Derrick, R. A., *A History of Fiji*, p.122.

(5) Hawels, Dr. Thomas, *Papers; Royal Admiral Journal*, A.1963. M.L.S.

^ /see 12: Vason, this file -- Analyst/

[1924-1942]

Trousers and black coats had been worn in imitation of Europeans, and old Free 241
Church people particularly were addicted to this practice. While Fijian and Samoan 793
preachers had their neat and comfortable native dress, their Tongan counterparts sweltered in their black suits. So conservative were members of Conference that permission was barely obtained, in 1932, for those College students who were local preachers to wear the *vala*. The same concession was obtained for theological students in 1934, and several years later the becoming native attire was adopted throughout the Free Wesleyan Church.

Gradually, other reforms were accepted. Illegitimate infants had not been 795
baptized in church services, to mark the Church's strong disapproval of illicit 848
sexual relationships; the reflection upon the infant was evidently thought to be immaterial. In a country where illegitimacy was over 17% of births, largely [162]
because the parties often preferred not to marry, and where no social stigma was attached to the child or its mother, it was incongruous that the Church should show discrimination in baptizing. Only a part of the service had been used in these cases, and this was done outside a church building. Even Dr. Moulton had felt that illegitimate children should be baptized quietly in his study or baptism left until a child was older. It was not until 1933 that Conference allowed baptism of an illegitimate child with the full service in the church, the mother accompanied
by a male relative. The 1934 Conference allowed funeral bells to be rung, 764
irrespective of the circumstances of birth or of death. 533

795
The 1934 Conference Minutes showed the care being exercised in the conduct
of worship. Conference ruled that the elements in Communion were to be received 795
kneeling (the old Wesleyan custom) and no one under fifteen years, normally, was 796
to be a communicant. The Morning Prayer Liturgy, with chanting, in Dr. Moulton's [516]
translation, had been used only in the Wesleyan Church after 1885; the old Free Church people had looked askance at it even after its optional use had been authorized in 1924; they overlooked the fact that the early missionaries had used these forms in an older and weaker translation. Gradually the liturgical forms were adopted.

Music always played a prominent part in Tongan Church worship. Choir 795
competitions, held in conjunction with the Annual Conference, were instituted in 796
1933. The Queen was one of the adjudicators on several occasions. Twice the 533
finals, with a massed choir of over 1,000, were held in the Palace grounds before a vast assemblage. The 50th anniversary of the setting up of the Free Wesleyan Church was celebrated in 1935, when thirty-seven choirs took part in the competitions.

An exceptional incident occurred in 1934 when a relatively small number 795
from the Free Church returned to the Free Wesleyan Church. A minister, John Malamala, with seventy people from the village of Kanokupolu, western Tongatapu, joined the Church.

Princess Fusipala, the Queen's step-sister, had been at school at Auckland 644
for six years, and at Methodist Ladies' College, Hawthorn, for three years. After serious ill-health in Tonga, she went to Sydney for medical treatment but died
there on 21 April 1933. Her body was brought to Nuku'alofa for interment in [764]
the royal tombs.

During World War II, on 21 July 1942, the Queen and the nation experienced the grievous loss of the Prince Consort and Premier, Tungi Mailefihi, who died

[1947-1971]

and disposed him to introduce new measures to expand Tonga's productivity. His 644
brother, John Ngu Tu'ipelehake, also studied in Australia, specializing in [178]
agriculture. The princes' double wedding in 1947 was an occasion of great
rejoicing among the people.

In 1953 the Queen visited Britain by invitation, to attend the coronation of 643
Queen Elizabeth. There she won the affection of all who saw her, so that even to 484
the present day the names "Tonga" and "Queen Salote" are linked in their minds.
When she arrived, she soon attracted attention as "the tallest Queen of the
smallest kingdom in the world". Her unaffected, yet regal, manner and her
geniality made her the darling of the British public before the memorable day
when, returning from Westminster Abbey, the Queen would not allow the hood
of her carriage to be raised as protection against a continuous downpour. To the
tumultous cheering of the hundreds of thousands who lined the route, she rode,
waving enthusiastically in response to their cheers, when not wiping the rain from
her forehead with her handkerchief. A leading article in a London newspaper
said, "Few visitors from overseas can ever have endeared themselves so widely
and speedily to the British people as the majestic lady who braved the drenching
of the Coronation procession in her open carriage".

It was with great rejoicing that the Tongan people heard that Queen Elizabeth 648
and the Duke of Edinburgh wished to include Tonga in their itinerary later in the 643
year. All parts of Tonga vied with each other in preparing lavish hospitality. The
Queen vacated her palace for the royal visitors. She felt obliged in courtesy to
drive round the palace all night, and 400 men and women were on guard the
whole time with flaming torches, observing an old custom. The royal party attended
the Sunday morning service at the Centenary Church, with over 2,000 people
inside and many hundreds outside. The President, the Rev. A. E. McKay, with
the Secretary of Conference, Sau Faupula, conducted the service. The choir sang [794]
the "Sanctus" from Bach's B Minor Mass and did so with the verve for which [533]
Tongan church choirs have become renowned. In her message to the royal party
after its departure, Queen Salote said, "I do not doubt that this historic occasion
has renewed the store of faith and joy in the hearts of my people as rain refreshes
a garden".

Tonga has been one of the most serious examples of population explosion. 161
Efforts to increase production and to find additional exports have hardly coped
with the needs of the rapidly expanding population. There has been a marked 163
decline in the death rate and especially in infant mortality, as a result of the [165]
Government's improved medical and public health services. The birth rate,
however, is still high — 29 per 1,000 in 1971. There was an increase of 35% 161
in the population in the ten years, 1956-66. The population (always below 25,000
in the first quarter of the century) had swollen to 77,429 in the census of 1966.
It is now estimated at 95,000 (1975), and to become 118,000 in 1980 — and [433]
this in a small archipelago with a total area of only 269 square miles where the
inhabitants have to grow their food as well as cash-crops. The density of population [162]
is over 500 per square mile in Tongatapu, and much more in the small islands of
Ha'apai where many men have no land. The family planning programme initiated [159]
by the Government has had little effect, largely through conservatism. In 1966, the [842]
average Tongan mother in the 35-45 age-group had slightly more than six
children. The crowding into Nuku'alofa, which has grown from 3,000 fifty years [162]
ago to more than 25,000, has had unfortunate social consequences. Congestion,

[1926 - 1975]

unemployment and an increase in crime have followed. In the two years, from 161
1966 to 1968, there was an increase of 46% in juvenile crime. It was estimated 162
in 1968 that there would be 11,000 youths leaving school in the following ten [674]
years, with only 1,400 jobs available for them in Government, commerce and [464]
industry — and no gardening land for a large proportion of them.

In 1975 it is estimated that about one-half of the taxpayers have no land 162
in spite of their legal entitlement. Because of the social and economic consequences 423
of this disturbing situation the Methodist General Conference in Sydney in May [797]
1975 expressed its sympathetic concern to the people of Tonga.

Migration to New Zealand, California, Hawaii, and elsewhere, has grown 167
considerably but has done little to mitigate the population problem. Many of the 184
large number of Tongans educated overseas return to find a social and cultural 464
gap as well as difficulty in gaining suitable employment. Tourism has given 457
limited relief, in the sale of artifacts as well as fruit and vegetables. Against this 177
are ill-effects arising from contact with the undesirable types of tourists.

Faced with economic conditions which affect the people's moral and religious 795
well-being, the Church has had to re-assess its own situation and its impact on
the community. It has failed to increase in proportion to the growth of population. 795
In 1926 the Free Wesleyan Church was 59%, in 1956 49.75%, in 1966 49.85%. 162
The Mormons who were 2.3% in 1931 were 7.15% in 1966. In 1966 the Roman
Catholics were 15.9%, the Free Church 14.3%, Church of Tonga 8.9%, Seventh
Day Adventists 1.08%. New sects, including Pentecostalists, Jehovah's Witnesses
and Baha'i, have entered the country.

The Free Wesleyan Church finds some satisfaction in the quality of its 795
ministry and in the development of its organization. In 1970 it had 13 ministers 793
with L.Th. diplomas, three with Diplomas in Religious Education (Melbourne
College of Divinity), one Bachelor of Arts, two Bachelors of Divinity, one Doctor
of Divinity. The Pacific Theological College in Suva, for advanced theological
education, is supported by the Free Wesleyan Church and other Churches in many
Pacific Islands groups. Greater attention has been given to improved organization 795
and literature for Sunday Schools and youth groups. The Friendly Islands [444]
Bookshop was established in 1973 through the initiative of the Connexional [212]
Secretary, John M. Connan, B.Sc., B.D., to provide more material in English
and Tongan for a people increasingly capable of benefiting from good literature.

At the local level religion still plays a major part in the Tongans' family and [771]
community life. The teachings and methods of the early missionaries have been continued, with the opportunities these have provided for singing, extemporaneous prayer and testimony in the services and "class meetings" that suit the Tongans' temperament. New forms, especially for young people, such as the Christian Endeavour Society, have been added. The three Churches which have sprung from the Wesleyan stock have generally followed the same pattern. What is distressing is the spectacle of division in even small villages. Two, and sometimes three, congregations worship simultaneously and not far apart from each other, using similar hymns and forms of worship, proclaiming the same doctrines, observing the same procedures — early Sunday morning prayer-meeting, two Sunday services, Sunday School, mid-week service, mid-week prayer meetings, "class meetings" for members, and the ever-popular choir practices. In many villages in recent years the rivalry has been worsened by the presence of other denominations also, with a total of five, six or more in some villages.

5

Tourism in Tonga: Troubled Times

CHARLES F. URBANOWICZ

The Kingdom of Tonga lies in the heart of fabled Polynesia, approximately 131
550 miles southwest of Samoa and 450 miles southeast of Fiji. The
tiny kingdom encompasses approximately 289 square miles and supports [161]
an estimated (1975) population of 100,105—an average density of more
than 346 persons per square mile. However, the actual usable land
available for settlement is only 190 square miles, giving a true population
density of 532 persons per square mile. The population is not evenly [162]
distributed and the largest island of the group, Tongatapu (100 square
miles with a population of 52,000) is the economic center for the
archipelago. This island has also been the historic residence of the [633]
aboriginal (Royal) leaders, and Nuku'alofa—the largest city, the capital,
and the main tourist target—is located there.

Formerly a British protectorate, Tonga achieved independence in 1970 642
and entered the British Commonwealth of Nations. The Constitutional
Monarchy dates to 1875 and the current monarch, His Majesty King [643]
Taufa'ahau Tupou IV, acceded to the throne in 1965. Tongan is the
official language, English is the second language and most Tongans are 197
bilingual. The population is also ethnically uniform: 98 percent of the 191
population are Tongans, and all are stalwart Christians. The 1966 census 162
listed 77,429 inhabitants, only 61 of whom failed to declare a religious 771
affiliation.

Tourism is nascent in Tonga, but the number of visitors is increasing 457
annually due to extensive overseas promotions that stress, in colorful
brochures, the beauty of "unspoiled" Polynesia, where English is spoken
and where there is a "real live King (and Queen)." Although Tonga is the
last surviving Polynesian Kingdom, it is far from being the "storybook"
land of the culture brokers. It is an overpopulated and underdeveloped
tiny nation, struggling to maintain its cultural integrity in the face of
twentieth-century changes. There are serious internal economic problems
in Tonga, for which tourism might be the panacea. This case study [121]

cultural context of population characteristics. The difference is that in 121
one case the demographer is invited onto anthropological territory, and in the other case the anthropologist speaks the demographer's language.

Enumerating the Population of Motulahi

Rather than continuing to discuss household surveys in the abstract, I shall use my own data from the Kingdom of Tonga as an example. These materials were collected in the course of an anthropological in- 101
vestigation of local organization in Tonga (conducted over a ten-month period in 1969—70).

The Tonga Islands lie just west of the International Dateline in the South Pacific Ocean, east of Fiji and south of Samoa. There are about 150 named islands, but most of them are little more than elevated reefs and have no potential for cultivation or settlement. Thirty-six islands were inhabited at the time of the last reported census, held in 1966 (Fiefia 1968, Rogers 1969). These inhabited islands comprise 238.81 square miles, almost 90 % of the land area of Tonga. At the census of [161]
1966 the population was 77,429, of whom 98.31 % were classified as [162]
Tongan (in contrast to others such as Europeans, part-Europeans, and other Pacific Islanders). The majority of the population lives in villages [361]
that are dotted throughout the islands in a nuclear pattern of village settlements. Most of the people who live in the rural areas and many of [241]
those who live in the towns are wholly or partially dependent for their [433]
livelihoods on peasant agriculture.

My research was based in the village of Motulahi, one of the largest 114
villages on Tongatapu, the main island of Tonga. It might be asked 184
whether Motulahi is a typical village. However, the nation of a typical village has no application to Tonga, for there is considerable diversity among Tongan villages with respect to a number of important variables. For example, there are significant differences between isolated village-islands on the one hand and villages on the relatively large island of Tongatapu on the other, or between a village on Tongatapu less than a mile from the capital town and another at the far end of Tongatapu. Villages in Tonga also differ considerably with respect to size of population, from less than one hundred people to more than one thousand, and the dimension of size cuts across the dimension of location. There

94: Decktor Korn E-5 (1969-1970) 1976
OU9 Tonga OU9
Tongatapu
Motulahi

184 are also differences among villages with respect to ecological setting,
population density, and a number of social, political, and economic
factors. Motulahi is particularly unlike most other villages in that there
162 is a very large number of people in the village. According to the census
361 of 1966, Motulahi's population numbered 1122, making it one of only
621 eight villages in the whole of Tonga with a population of more than
one thousand people. At the same time, half of all the villages in Tonga
had a population under three hundred. However, the population of all
these small villages accounted for less than one fifth of the total population
of Tonga, and only one quarter of all the people living in villages.

125 Before proceeding to examine the population of Motulahi, something
should be said about the difficulty of making a statement about who
the people of any village in Tonga *are*. My household survey was conducted
intermittently, beginning early in January 1970 and continuing
[484] at intervals until about the middle of May. By the end of that period,
[166] some of the people who were enumerated earlier in the survey were no
longer living in Motulahi or were still in the village but living in some
other household, while others came to live in Motulahi only after I had
121 already surveyed the household in which they lived. Demographers
commonly deal with these fluctuations by arbitrarily fixing on a particular
date and enumerating the population present at that date. This
suits their purpose of enumeration, but it is an intolerably arbitrary
solution of the problem of ethnographic description (Carroll 1975a,
Colson 1967). My lack of concern at that time for the demographic
significance of the data I was collecting is revealed by the fact that I did
not take the simple step of making an enumeration of the population
present on one day. Instead, what I did was try to keep track of the
people whose existence I was aware of, noting changes in household
composition and migration in and out of the village. It was in considering
how to deal with these data that I came to realize that population
flux is not a difficulty that gets in the way of perceiving the
demographic characteristics of the village but, instead, is a vital element
of proper description of local organization in Tonga (Decktor Korn
1975). Again, since I gave no thought to the compilation of statistics on
migration, I made no effort to ascertain exactly when these residential
changes took place. What I wanted to determine was the reasons and
circumstances that caused people to make their moves.

For the present purpose of presenting a demographic profile of the village, I am taking the population of Motulahi to be the sum of the people who were enumerated in the course of the house-to-house survey (except that anyone enumerated more than once is counted only at the last household). People not living in a household at the time it was surveyed are not included here; to include them would inflate the population total and distort the age-sex proportions, since young adults are more mobile residentially than other segments of the population. 125

According to this enumeration, Motulahi had 1192 inhabitants in the early part of 1970. Of these people, 617 were male and 575 were female (see Table 1). A percentage breakdown of village population according to ten-year age categories indicates that more than half the population was under the age of twenty and over 90 % were under the age of fifty. This is similar to the age distribution within the national population at the time of the census of 1966. However, there was a higher percentage of persons in the 10—19 year-old group in Motulahi than in the nation at large, and this might be accounted for by the fact that it is fairly 621 162 [166] [871]

Table 1. Population of Motulahi 1970, Enumerated by Sex and Age and Compared with the National Population (1966)

Age Group	Motulahi					National	
	Number			% (N = 1192)	Proportion of Males per 1000 Persons	% (N = 77,429)	Proportion of Males per 1000 Persons
	Males	Females	Total				
0—9	202	168	370	31.0	546	33.4	520
10—19	183	147	330	27.7	555	22.9	517
20—29	81	93	174	14.6	466	15.1	503
30—39	53	66	119	10.0	445	11.2	505
40—49	54	51	105	8.8	514	7.8	524
50—59	23	23	46	3.9	500	4.6	525
60—69	12	15	27	2.3	444	3.0	497
70+	9	12	21	1.8	429	1.8	466
Unknown	—	—	—	—	NA	0.2	NA
Total	617	575	1192	100.1	518	100.0	514

Sources: fieldwork survey; Fiefia 1968: 50—52.

621 common for youngsters from the outer islands to be sent to live with
162 a family on Tongatapu so that they can attend the better schools on
871 [168] the main island.

There is less similarity to national demographic characteristics when
we examine the proportion of males in the population; that is, there are
considerable differences between the figures for Motulahi and those for
[562] the population as a whole (see Table 1). The excess of males over
[166] females in the 10—19 year-old group might be accounted for by the
fact that, while there is no overt sex discrimination in education opportunity, a boy's parents are more likely to make the effort involved in
moving to live on the main island or sending their child to live there.
[464] The excess of females in the 20—29 and 30—39 year-old groups might
be accounted for by the fact that men in those age-categories may be
living away from the main island to earn a living on the land or in
some job while the wife and children live where the children can take
121 advantage of educational opportunities. However, I do not have a great
162 deal of confidence in these explanations. The age-sex structure of the
national population calls for further demographic investigation, and
differences between the age-sex proportions for Motulahi and the nation
as a whole could be accounted for by random variation.

Anomalies, Discrepancies, and Ethnographic Validity

125 Again, had I been interested in these matters at the time the data were
114 collected, I would undoubtedly be in a better position now. For one
thing, I would surely have been more careful in collecting data on
people's age and checking the accuracy of these data. Then, I was
usually content to record what I was told about a person's age at the
nearest birthday; I seldom bothered to ask for the exact birth date, and
there were few cases where the answer to my question about a person's
age seemed so anomalous that I felt it necessary to probe beyond the
first response. However, I now feel that the accuracy of my data on age
must be regarded with some reservation, and of course this affects the
value of other demographic data, particularly material relating to fer-
[163] tility. The assumption that the data on exact age are not accurate is the
[162] most likely explanation for the anomalous finding that only two young
[621] women in the village said to be under the age of twenty had already

162
163
621

Table 2. Maternal Age at the Birth of the First Child among Women of Motulahi (1970) Aged Fifteen and Over, and Compared with the National Census (1966)

Age at Birth of First Child	Women of Motulahi							Tonga
	15—19 (N=64) %	20—24 (N=58) %	25—29 (N=35) %	30—39 (N=66) %	40—49 (N=51) %	50+ (N=50) %	Total (N=324) %	Total (N=20,456) %
Below 20	3.1	15.5	14.3	15.2	13.7	16.0	12.7	15.1
20—24	NA	22.4	42.9	33.3	17.6	22.0	21.6	33.3
25—29	NA	NA	8.6	19.7	23.5	8.0	9.9	10.2
Over 30	NA	NA	NA	4.5	2.0	6.0	2.2	3.3
Age at first birth not known	—	—	2.9	10.6	33.3	44.0	14.5	—
No children	96.9	62.1	22.9	12.1	9.8	4.0	37.3	35.9
No relevant data	—	—	8.6	4.5	—	—	1.9	2.2
Total	100.0	100.0	100.2	99.9	99.9	100.0	100.1	100.0

Sources: fieldwork survey; Fiefia 1968: 58, 62.

114 given birth and none of those said to be twenty had already given birth,
125 whereas 15.5 % of the women aged 20—24 gave birth for the first time
163 before the age of twenty (see Table 2).

162
621 What is interesting is that the official report on the national census of 1966 presents similarly anomalous data in that 95.37 % of women
162 aged 15—19 had never given birth (Fiefia 1968: 58), whereas 15.1 %
163 of all women aged fifteen and over gave birth for the first time before
659 the age of twenty (see Table 2). The national census, however, does not give a breakdown of maternal age at the birth of the first child classified according to the woman's current age, so it is not clear whether these data are as problematic as the data from Motulahi. It should also be noted that the Census Officer for the 1966 census repeatedly mentions his reservations regarding the accuracy of the census data on age, and emphasizes this in commenting on the findings relating to maternal age at the birth of the first child (Fiefia 1968: 20), so the points is not that the problem is not recognized by those responsible for

162 the national census. Rather, the point I wish to emphasize is that an
163 ethnographer is generally in far the best position to provide data whose
659 quality and accuracy are such that they may constitute a special con-
[121] tribution: first, by providing a check on the quality and accuracy of data
[125] collected by means of conventional censusing, and second, by facilitating
demographic analyses that are either not possible or not feasible in the analysis of the conventionally-derived census.

121 As to the first contribution—providing a check on the quality and accuracy of data collected by means of conventional censusing—I shall give an example from Tongan data relating to migration.

166 Since Tonga is a country of many small islands, slight shifts of population may have important consequences and therefore migration is a matter of considerable interest. In the words of the Census Officer for the 1966 census,

> "It will be proposed throughout this Report that the Tongan population
> [659] has become mobile, both internally and externally . . . The movement of people between the islands especially to Tongatapu, has reached a stage where governmental intervention in the supervision and planning of these migrations is urgently required." (Fiefia 1968: 11.)

Clearly, the Tongan government would like to have information about migration. However, as the following discussion shows, the notion of migration is not culturally neutral and the problem is how data on 'migration' are to be obtained.

659 In the national census reports, both for 1956 and 1966, there is a
166 comparison between place of birth and place of enumeration. The
difficulty with this is that while such a comparison tells us something
about population movement, it cannot be taken to be very informative
591 about the rate and direction of migration. This is because in Tonga,
particularly in the early years of a marriage until a couple establishes
their own household, there is a great deal of movement back and forth
between the wife's kin and the husband's kin. A child may be born at
the home of one set of grandparents, live for some time at the home of
another set (where some siblings may be born), and grow up at a third
659 place where the parents have established their own household. The
166 demographic difficulties resulting from this are partly recognized in the
report on the 1966 census:

> "As the Census was a de facto one, people were enumerated in wherever 659 they were domiciled at the time of the Census. It is legitimate to assume 166 that many people would be enumerated away from their village or island of birth. However, it would be false to assume that all persons enumerated away from their islands of birth were migrants, external or internal. Children are born in whatever village their parents happen to be residing at the time and they do not select their village of residence. A more realistic picture of any migration that has taken place can be obtained by examining the adult population which decides on the place of permanent residence. It is therefore justifiable to say that the majority of the adults who were born in one island but enumerated in another could be assumed to have migrated there." (Fiefia 1968: 21.)

As I understand it, there are two important points in the preceding passage. First, a child's moving from one place of residence to another is not a matter of the child's choice and therefore, while one can make inferences about an adult's residential preference from his place of enumeration, one cannot do this in the case of a child. Second, since a more realistic picture of residential preference is obtained by focusing on adults' residential mobility, the data on children's mobility should be excluded. Both points are well taken. However, an adult's being enumerated away from where he was born does not warrant the conclusion that his having moved there was a matter of his residential preference; he might have come there as a child. Thus, one does not get around the problem of correcting for children's residential mobility by limiting the comparison between places of birth and enumeration to adults. An indication 162 of the extent to which such a comparison distorts the data is seen 166 in Table 3, which distinguishes among adults living in Motulahi in 1970 621 according to the point at which they first came to live in the village. The table shows that while fewer than 30 % were born in Motulahi, more than half the adult population first lived in Motulahi before they were adults.

Clearly, a gross comparison of place of birth and place of enumeration 125 is not very meaningful unless the residential circumstances at the time of birth and through childhood are known. Investigation along these lines, however, is hardly feasible in the collection and compilation of the national census. Furthermore, while such data could be obtained through

162
166
621
Table 3. Initial Residence in Motulahi of Adults Resident in Motulahi in 1970, by Age

Circumstances of Initial Residence	Age Group			Total (N = 492) %
	20—29 (N = 174) %	30—49 (N = 224) %	50 + (N = 95) %	
Born in Motulahi	35.1	28.1	16.0	28.3
Came Before Age 20	31.0	25.0	11.7	24.6
Came as an Adult	33.9	46.9	72.3	47.2
Total	100.0	100.0	100.0	100.1

Source: Field notes.

125 ethnographic censusing, it is not clear how they are to be presented in a quantifiable form without violating their ethnographic integrity.

Thus, the problem of establishing culturally meaningful indices of migration in Tonga remains. One solution might be to examine how long each person has resided at the place of enumeration. Indeed, this was one of the recommendations made in the official report on the 1956 census (Tupouniua 1958: 28). The recommendation was not imple- 574 mented in the next census, however. The difficulty is that visiting away from home with friends and relatives for a few days or weeks is a favorite activity of Tongans, particularly among young unmarried adults, and such short-term population movements would distort any index of population flow based on the length of residence at the place of enumeration. 574 591 One cannot get around this problem by asking about the person's normal or ordinary place of permanent residence, because Tongans do not have our concept of permanent residence; instead, they recognize different kinds of what we would call "temporary residence" (see Decktor Korn 1975). This difficulty might be dealt with by enquiring how long the person has/had been living at the place where he was resident for the majority of the previous twelve months. While this does not produce an index of migration, it could serve as an index of the extent of residential stability.

125 As to the question of population flow, an improvement on comparison of place of birth and place of enumeration would be to ask where the

/64 cont./

591
582 183. Among these, however, there are four clergymen who were transferred to 'Uiha.

In Fungamisi, the small neighboring village of the most important urban seaport of Neiafu, (184)

184. The village is very favorably located with respect to traffic.

of nine married couples, both partners were born in the village. Among the partners of 21 other married couples, six men and 15 women came from the outside, while among the remaining six couples, both partners moved there from the outside.

591
592 In general, only one married couple with their children (and possibly relatives) lives on one place in the village. Sometimes older couples will take in the wife of a son.

592 Some Tongans have relatives living with them, including: a widowed mother or father of the husband, probably also his as yet unmarried brothers, less often the husband's sisters, and seldom relatives of the wife. There are also a few households without married couples, /consisting of/ unmarried, widowed, divorced or separated men, or women who keep house by themselves (rare), or together with relatives (usually father or mother, brother, sister, son, daughter).

589
162 Almost all Tongans marry. This is shown in the following survey: The non-married person of marriageable age in the village of 'Uiha (total population 647) may be divided into the following age groups:

under 25 years:	32 male	natives
	35 female	"
between 25 and 40 years:	10 male (1 widower)	"
	8 female (2 widows 2 divorced)	"

/64 cont./

589
162

over 40 years:	12 male	natives
	(8 widowers	"
	1 divorced)	
	5 female	"
	(1 widowed,	
	1 divorced)	

Thus, among the natives over 40 years of age in 'Uiha there are only 2 men and 3 women who, in the course of their lives, did not enter into a regular marriage.

/65/ The non-married, marriageable persons in the village of Fungamisi (total population 263) may be divided into the following age groups:

under 25 years:	12 male	natives
	21 female	"
between 25 and 40 years:	6 male	"
	5 female	"
	(1 widowed,	
	1 divorced)	
over 40 years:	3 male	"
	(1 widower)	
	4 female	"
	(all widows)	

Thus, among the natives over 40 years of age in Fungamisi there are only two men who have not yet entered into a regular marriage in the course of their lives.

592 162 The size of the Tongan household, that is the total number of natives living together on one property (married couples, children, resident relatives, see above) amounts to 6.7 persons for Nomuka, 592 342 343 6.5 for 'Uiha and 6 for Fungamisi. The buildings of such a household usually consist of one living (=sleeping) house (or several), (185)

185. In 'Uhia, 59 households have one house each, 39 households have two, and two households have three such houses; in Fungamisi 36 households have one house each, eight households have two houses each and one

592 /65 cont./

342 household has three.

343 one cook hut, a small "bath" house, and a latrine hut. (186)

> 186. Of the 100 households in the village of 'Uiha, 12 have no cook hut, 19 have no small bath house and 17 have no latrine hut; in the 45 households of Fungamisi there are six without cook huts, 20 without small bath houses and five without latrine huts.

163 The Tongan family of today has an average of barely four children.
592 (187)

> 187. The figures worked out by the author for 'Uiha and Fungamisi are 3.8 and 3.7; deceased children were not counted, but included were those who had left to go to school in Tongatapu, etc.

592 In addition, there are adopted children, that is the children of
597 relatives, who are taken in by some families for a rather long period, often until they reach adulthood; (188)

> 188. For example, children of the husband's sister or brother, the wife's sister or brother.

children of fellow-villagers or other acquaintances are less often
162 adopted. "Adoption" assumes the following proportions: Of 289
597 children under 16 years of age in 'Uiha, 254 live with their natural parents and 35 with their adoptive parents. We find there a total of 23 families with adopted children (14 with one child each, six with two children each, three with three each). In Fugamisi, 11 of the 128 children under 16 years are adopted and live in seven families (four families with one child each, two with two children each, one
597 with three children). These adoptions are very seldom official (that is, for which a registration fee of two pounds was paid by the adoptive parents to the Supreme Court. /cited in English/). Usually, /66/ an adoption takes place if one day the small child of a relative (or fellow-villager) is asked for, and is taken into the household

/68 cont./

581 178 longer as easy as it formerly was. (194)

586 177 194. According to Mariner, a divorce by the husband occurred "with no other ceremony than just telling her that she may go..." /cited in English/ (J. Martin, loc. cit. II. p. 173.)

587 586 Nevertheless, many a nonchalant Tongan thinks nothing of leaving his spouse and establishing himself in another household in the village, in order to enter another marriage without being in a hurry about legal divorce with its attendant costs.

585 162 178 The number of married persons is larger today than it was in pre-European times, if the statements of the generally quite reliable Mariner are correct. (195)

195. Mariner says one-third of the women are unmarried (J. Martin, loc. cit. II. p. 168.)

592 565 178 There is no reason to doubt that in the past the household of the majority of commoners working as farmers consisted of approximately the same number of persons as today. (196)

(589) (463) 196. The unmarried women lived mainly as servants on the properties of the chiefs (compare J. Martin, loc. cit. II. p. 168), just as male commoners were used as cooks and humble workmen (compare J. Martin, loc. cit. II. p. 92.

[597] Certain numerical differences could only have come about through the adoption of children, in case this was as common as Gifford assumes. (197)

197. E.W. Gifford, Tongan Society /cited in English/. p. 26; compare with this the numbers given above of today's adopted children.

592 565 The rather impressive household of nobles resulting from polygamy and numerous servants has, however, with few exceptions, been reduced to the general standard (of commoners).

/92 cont./
553 rendered: "the coconut whose offshoot comes out of the sea, to take
551 root on the shore [whither it was driven]").

B. Village Life

a) Settlement and Community

361 The Tongans today live in villages. These differ in size. In
162 general, they have several hundred inhabitants. In the smallest
settlements on a few islands there are approximately 50 to 80 natives
632 living. The largest, "urbanized" villages, on the other hand, are:
[162) Nuku'alofa (Tongatapu) with approximately 4500 inhabitants, Neiafu
(Vava'u) with approximately 2200, Mu'a (Tongatapu) with approximately
1400, and Pangai-Hihifo (Lifuka) with approximately 1000. In these
[464) larger towns many Tonga already work in trade, industry and government
[366] service; here there are rather large department stores and cars;
[493) Nuku'alofa and Neiafu have paved streets, also cinemas, and, in the
[363) former telephones and electric light have been installed. But here too,
[368] [365) in the larger settlements, the majority of Tongans have plantations and
[423) work them more or less regularly--to some extent along with other
occupations.

621 /93/ The following figures were obtained in average Tongan
162 villages
592
362

	Number of inhabitants	Households (cook hut & meals in common)	Living- (sleeping houses)
Nomuka......................	567	85	125
'Uiha ('Uiha)................	647	100	143
Felemea ('Uiha).............	372	48	72
Fungamisi (Vava'u)..........	263	45	55

368 In an average Tongan village there are usually three or four
churches of various denominations. (264)

264. Even on the island of 'O'ua (Ha'apai group)

/119 cont./

423 amounts to more than 200 individuals per square mile. The greatest
[161] density is in the Ha'apai Islands. There, for example, if there
[428] are three sons in a family, one of them (generally the oldest)
usually inherits, after the death of his parents, the api'uta of his
father (in addition to his api kolo) and the other two will often no
longer be able to receive an api'uta of their own if they apply for
[161] it. The Tongan population has grown very much in comparison with the
past, and there is sufficient land available only on the large
inhabited islands or on some uninhabited ones. (329)

[425]
[427]
(113)

329. In 1950, according to government documents, of the 188,975 acres available for distribution, only 78,345 had been given out (as api'uta to 8647 taxpayers and as lease lands to foreigners and Tongans). The remaining 110,630 acres were still available (minus the village and urban areas) (see Report of the Minister of Lands for the Year 1950 /cited in English/. Nuku'alofa 1951. p. 1).

These two sons can get their own api'uta of 8^{1}/4 acres on Tongatapu or 'Eua, for example. But usually people prefer to remain on their home island. (330)

[162]
[425]

330. On the island of Nomuka, for example, among a total population of 567 souls, there are 69 men who have a right to an api'uta, but are unable to get it because all the land has been distributed; they are staying on Nomuka even though they would be able to receive their api'uta on Tongatapu, for example. While all land claims must still be provided for within the Archipelago, 4307 taxpayers in 1950 did not take over an api'uta for the aforementioned reasons (see Report of the Minister of Lands for the Year 1950. p. 2).

People are attached to their islands and their kinsmen, and they may
[425] also dislike to clear virgin land. Thus they stay in their villages,
[241]

/258 cont./

534 [202] instruments; they were used to give signals (as they sometimes are even today).

534 178 [231] The rhythm-stampers, the beating sticks (697)

> 697. Very occasionally, however, one still sees on plantation land on the small islands two slim trunks lying over a pit; the natives drum on these with two sticks and produce various tones to call the chickens for feeding.

and the nafa slit-drums, as well as the panpipes are today no longer found in Tonga. There are only a very few examples of the nose flute in the Archipelago, and very rarely an aged native will bring out such an instrument and play a few tones on it; (698)

> ● [162] 698. On the island of Nomuka (567 inhabitants), for example, there was only one nose flute in 1952, and its aged female owner was unable to play it; among the people there was only one man who was able to blow a short and incomplete melody on it.

very probably the nose flute, which was apparently seldom used even in Mariner's time (that is, at the beginning of the past century), will soon be forgotten.

534 /259/ To accompany the ma'ulu'ulu dance the Tongans in modern times have made a drum which they call nafa. This instrument that is widespread today has only its name in common with the ancient [177] Tongan nafa, which was a cylindrical slit-drum, for it consists of an old metal can with the bottom and top removed and the resulting open sides stretched with animal skin (of cow, horse or goat). This drum is beaten with sticks that have been made like European [178] [202] kettledrum sticks. To accompany the me'etu'upaki, an old Tongan dance, natives today use, instead of the nafa slit-drum customary in former times, the lali slit-drum, (699)

> 699. The lali are about 1.60 to 2.00 meters long

/259 cont./

534 with a diameter of about 40-50 centimeters and
a slit-width of about 30 to 40 centimeters.
534 They are pieces of trunk of the fehi (Intsia
824 bijuga), telie (Terminalia species), 'ifi
(Inocarpus fagiferus [Park.] Fosb.), feta'u
(Calophyllum inophyllum) or kau trees, and
are hollowed out in such a way that the body
of the drum extends a good handbreadth
beyond the side walls that enclose the hollow.
The drumsticks are carved in various sizes,
usually out of the soft wood of the tuitui tree
(Aleurites moluccana [L.] Willd.). It is
[177] possible that the lali was once upon a time
borrowed from Fiji.

534 which was originally a signal drum for wartime and still exists in
178 large numbers on the islands and is sometimes still made, for it is
202 used where there are no church bells to call together the church-goers
to the services of the various village congregations, and in some places
it is used to announce the start of school. At various dances the
534 old drums and other instruments used for rhythm are replaced by
177 ordinary tin cans beaten with sticks.

For the rest, the natives have adopted various European musical
instruments. Guitars especially are very popular; (700)

[162] 700. On Nomuka (567 inhabitants) were , for
example, about 20 guitars in 1952, while
in Fungamisi/Vava'u (263 inhabitants)
there were about 12.

they are played almost exclusively by young Tongans for group singing
and also to accompany the tau'olunga and hula dances, for example.
One seldom sees mandolins or violins. In almost every village today
there are also a few mouth organs; the natives like to buy them
shortly before Christmas from the shopkeeper and then organize a
533 small mouth-organ orchestra for the holidays. Chiefly in the large
towns there are brass bands founded by churches. Using European
[177] scores they play on special occasions, for instance at burials and

/278 cont./

000 English/.

871 177 The children and with them the parents are relatively open-minded about this European educational system. Today--in contrast to conditions a few decades ago--school attendance is apparently quite regular.

872 In 1952, for example, about 150 boys and girls went to the government elementary school of the village of 'Uiha ('Uiha"), a typical settlement of the small islands, and all but four of them attended classes rather regularly. The teacher had the parents of children who played truant force them to attend school. The four pupils mentioned, however, were generally regarded as "hopeless cases" since, immediately after they were brought to school by their parents, they ran away again and could not bring themselves to spend the morning sitting in school. About half the children really like to attend because of their interest in the teaching and their pleasure in the group games; the rest of the boys and girls attended school because it was compulsory.

873 The number of those who have attended college is relatively large considering the slight opportunity they have to apply this education of several years' duration. Investigations conducted by the author (162) in 1952 in the village of 'Uiha/'Uiha showed that of the 358 adults living there, 57 (chiefly men) had attended college, while in Fungamisi/Vava'u there were 23 (chiefly men) who attended among the 135 adults of the settlement.

153 157 871 The Tongan boys and girls seem generally intelligent and receptive in the classroom. A leading white educator who was questioned emphasized that there was "apparently nothing wrong with their intelligence," /cited in English/ but that their temperament and their entire ambience was different, as though their motto were: "Don't worry, go to sleep!" Despite a great deal of honest effort Tongan boys and girls are

178 361 pattern. Villages, resembling the modern concept of population grouping, replaced the fortified structures, often being constructed on the original fortress site (i.e., Feletoa and Neiafu).

423 [241] It was during this post-civil war period that the present agricultural system, based upon land tenure, was initiated. Under a decree issued by Tupou I, farmland was divided into allotments of approximately eight and one-quarter acres, or 100 fathoms square. This 'api tukuhau, or rural allocation system, was available to all males over 16 years of age. In addition, the 'api kola, or urban allocation system, provided each family with two-fifths of an acre within a village, for housing. An alternative to the above permitted an individual to waive his rural and urban allotments, in exchange for a larger rural allotment of 12 3/8 acres.

361 The bonds of communal living insured the survival of this nuclear village pattern, despite the fact that some individuals [484] resided a substantial distance from their farm holdings. Within modern Tonga, this pattern still exists as a strongly bound unit, even though this often necessitates as much as 20 miles of travel from village to farm acreage (Kennedy 1958, p. 165).

361

Twentieth Century Population Settlement

162 The population of twentieth century Tonga can be divided into three groups, by pattern of settlement: (1) villages, (2) towns, and (3) miscellaneous groupings, such as school and church facilities.

621 Although the village concept is relatively new to Tongan culture, it serves today as the center of most social and economic

369 3. a form of local government different from that of rural areas, as being more suited to the provision of necessary urban services, made possible by greater population concentrations and financial potential (Urbanization . . ., 1962, p. v).

Nuku'alofa is Tonga's center of economic and social activity.
369 The urban area houses a rapidly expanding population in excess of
● 162 20,000, and has spread along the major transportation routes to the
361 point where it has overtaken surrounding villages and formed a 1.5
mile arc, radiating from the waterfront. The population density is
greatest along the peripheral edge of the city's central business
district, and along the major transportation routes leading into the
369 city. As the nation's capital, Nuku'alofa contains the majority of
governmental divisions, including the royal family and all major
ministerial departments. Although Pangai and Neiafu are also capitals, of Ha'apai and Vava'u respectively, they are greatly overshadowed by Nuku'alofa.

Pangai, the capital of Ha'apai, exhibits fewer of the urban
[162] characteristics found within Nuku'alofa. Smallest of the four
Tongan cities, Pangai evidenced a decreasing population during the
intercensal period of 1956 to 1966. However, within the Ha'apai
island group, Pangai remains the focal point of governmental, social
[368] and economic activity. The recent construction of the Ha'apai airfield, and the development of tourism, is expected to forestall further declines in Pangai's population.

Neiafu, capital of Vava'u, is second only to Nuku'alofa in terms of commerce and economic development. Neiafu not only serves as the administrative center of Vava'u, but is rapidly becoming the most important tourist center in the Kingdom.

369 Considering the urban characteristics set forth by the South Pacific Commission as being applicable to the Pacific islands, it becomes apparent that the cities of Pangai, Neiafu, and Nuku'alofa can be defined as being urban centers. In the case of Mu'a, though larger than Pangai in terms of population, the lack of such urban characteristics as government, commerce, and economics eliminates it from urban classification, under the South Pacific Commission's definition.

162 Other population groupings of significance include church
795 training facilities and schools. The most important of these are
873 Salote College and Toloa Methodist Training College, sponsored by
874 the Wesleyan Methodist organization, and Liahona High School,
[162] sponsored by the Church of Jesus Christ of Latter Day Saints. Each
of these include several hundred students and staff, many of whom
live in housing provided by the respective schools.

874 Other groupings to be considered within this classification
162 are the training camp for the Tongan defense force and the police
training facility, both on Tongatupa. The population of these two
facilities, though largely transient, must be recognized.

161 The historical growth of Tongan population can only be
128 estimated through calculation of approximate numbers supported by
161 approximate tillable acreage. Therefore, figures representing the
128 population prior to the first census (1921) reflect educated guesses
127 supported at times by missionary estimates and head counts (Walsh
1970, p. 31). In addition, none of the censuses prior to 1956 can
161
127 be considered to be entirely reliable. McArthur stated that

161 increased to 3.1 percent between 1931 and 1956, with the population growing from 28,839 to 56,838 (*Kingdom of Tonga: Statistical Abstract 1972*, p. 1). This rate of expansion accelerated further during the intercensal period, 1956 to 1966, to reach 3.6 percent. By the time of the 1966 census, the Tongan Kingdom contained 77,429 individuals. This represents a tripling of the 1918 population figure, in less than 40 years. Since 1966, the population has increased by approximately 20,000, and now stands in excess of 95,000.

Data available from the Tongan Department of Justice, and published after 1966, indicates a decelerating population growth rate (Table 2). While there exists some speculation as to the accuracy of this data, it appears that the annual growth rate has decreased from the intercensal 3.6 percent, to a 1973 level of 2.5 percent (*Report of the Department of Justice* 1973, p. 9). However, despite the declining growth rate, a proportional decrease in the
161 yearly numerical increase of the population is not evident. Sta-
163 tistical evidence indicates that greater numbers of the population
are entering the fertile years, thereby offsetting the decreasing
162 rate of growth by maintaining a nearly constant or increasing
number of births. Furthermore, due to the age structuring of the population, which is decidedly young, more individuals will be entering the reproductive years in the near future, than will be leaving it (Table 3).

161 Projection for the future population of the islands differs greatly, depending upon the sources consulted. Therefore, Table 4 (page 29) projects the population for five different growth rates,

101: Clark K-4,5 (1974) 1978 OU9 Tonga OU9

161 TABLE 2.--Crude Birth and Death Rates.

163
165

Year	Registered Births	Registered Deaths	Natural Increase	Per Thousand Births	Per Thousand Deaths	Yearly Growth
1966	2,870	228	2,672	38	3	3.46
1967	2,652	278	2,374	34	4	3.06
1968	2,648	209	2,439	33	3	3.05
1969	2,844	236	2,608	34	3	3.16
1970	2,652	227	2,425	31	3	2.85
1971	2,505	285	2,220	29	3	2.54
1972			2,486			2.74
1973			2,395			2.58

SOURCES: Population Census Reports, 1956 and 1966.
Report of the Department of Justice, 1966-1971 (Nuku'alofa: Government Printer).
Kingdom of Tonga: Statistical Abstract 1972 (Nuku'alofa: Government Printer, 1972), p. 4.

● 162 TABLE 3.--Population by Broad Age Groups.

161

Age Groups	1956 Census Total	1956 Census %	1966 Census Total	1966 Census %
Under 5	10,031	17.7	14,326	18.5
05 - 09	8,090	14.2	11,546	14.9
10 - 14	6,843	12.0	9,873	12.7
15 - 19	6,045	10.6	7,825	10.1
20 - 24	4,968	8.8	6,219	8.0
25 - 29	4,416	7.8	5,441	7.0
30 - 34	3,537	6.2	4,542	5.9
35 - 39	2,896	5.1	4,154	5.4
40 - 44	2,256	4.0	3,321	4.3
45 - 49	1,782	3.1	2,711	3.5
50 - 54	1,606	2.8	2,064	2.7
55 - 59	1,279	2.3	1,484	1.9
Over 60	3,089	5.4	3,923	5.1
Total	56,838	100.0	77,429	100.0

SOURCE: Kingdom of Tonga, Statistical Abstract 1972 (Nuku'alofa: Government Printer, 1972), p. 4.

161 TABLE 4.--Projected Population Size of Tonga.

Year	Growth Rate, Percent Per Year				
	1.5	2	2.5	3	3.5
1980	104,000	107,500	112,000	117,500	121,000
1990	120,500	131,500	143,500	156,500	170,500
2000	141,500	161,500	183,000	210,000	240,000
2010	162,500	198,000	234,000	281,000	338,000

for the forthcoming 30-year period (1980 to 2010). A growth of 2.5 percent, though not currently met, probably provides the most realistic estimate, though possibly conservative, for long range projections.

Regardless of the estimated growth rate used, one overriding feature becomes apparent when considering Tonga's population history and its projected future. It took approximately 100 years to double the 1840 population figure of 18,500. The 1940 population figure, approximately 35,000, required less than 25 years to double, resulting in 70,000 individuals. Projected growth rates (Table 4) indicate that the population will double again between 1966 and 1990, a period of 24 years.

162
563 The population composition of modern Tonga is homogenous. As indicated within Table 5, 98 percent of the population is Tongan, while less than 2 percent is composed of other racial elements.
563 [423] [432] Throughout history, Tongan law has consistently forbade the sale of land to non-Tongans. Therefore, this non-native element is primarily

161 TABLE 5.--Component Populations of the Kingdom Showing Respective
●162 Percentages to Total Population: 1939, 1956, and 1966.

563

Component Population	1939 Census	1956 Census	1966 Census
Tongans	96.28%	97.04%	98.31%
Europeans	1.17	0.40	0.42
Part-Europeans	1.29	1.06	0.66
All Others	1.26	1.41	0.51
	100.00	100.00	100.00

SOURCE: S. N. Fiefia, Report of the Results of the 1966 Census (Nuku'alofa: Government Printer, 1968), p. 17.

563 concentrated within the urban areas. Of this 2 percent non-Tongan
[162] population, nearly 30 percent are of mixed racial composition, the
563 majority of whom are of Tongan and European descent. The signifi-
578 cance of this absence of alien racial elements is the subsequent
171 absence of conflicts of interest between these elements, often evident in other Pacific island groups (i.e., in Fiji between Fijians and Indians, and in Tahiti between the Chinese and native Tahitians).

609 The basis for this homogenic feature may, in part, be traced to the civil war period of Tongan history. During this period, evidence indicates an increasing Tongan hostility toward the resident Europeans. The popularized name, "The Friendly Islands," given to Tonga by Cook, became a misnomer as ships and missionaries were attacked. Tales of murder and cannibalism emanated from the voyages of the ships "Duke of Portland" (1802), "Union" (1804),

609 "Supply" (1822), and "Rambler" (1824) (Wood 1932, p. 34). Although the authenticity of these stories may be questioned, they effectively portrayed Tonga as an extremely inhospitable landing for European ships.

648 Following the civil war period, the newly formed Tongan nation successfully maintained its independent status, despite the fact that other Pacific territories became European colonies or possessions. Prior to 1900, various treaties were signed with France, Germany, the United States, and Britain. The British treaty of 1900 designated Britain as the Protecting Power of Tonga, and reconfirmed Tongan independence. This treaty, in effect from 1900 to 1970, insured Tongan independence and shielded the islands from any substantial alien influences.

167 At no time has Tonga experienced large scale influxes of alien population, such as the introduction of alien labor into

144 Fiji, or the Anglo annexation of Eastern Samoa. This has allowed the maintenance of a nearly pure racial complexion in Tonga, with only a very minimum alien entry.

162 A second significant feature of the Tongan population composition is the age structure. This factor is particularly important in terms of projected population growth rate, as well as to

162 future agricultural, urban, and economic planning. An examination

161 of the 1956 and 1966 censuses reveals a significant expansion of the population percentages within the young age groups (Table 3).^A For example, the pre-fertility age group, ages 0 to 14, increased from 43.9 percent of the total population in 1956, to 46.1 percent in

^A[See Category 162, p. 28--Analyst.]

162 1966. On the other hand, the reproductive age groups, ages 15 to
161 44, evidenced a decline within each age group, with the exceptions
of ages 35 to 39 and 40 to 44. Further examination of these reproductive
age groups indicates, however, that while an overall percentage
decrease was realized between 1956 and 1966, the absolute
161 numbers within each group increased substantially. This explains
163 why, while the percentage of post-1966 births has decreased, the
total number of births has remained nearly static (Table 2).^A

161 While stable populations develop stable age distributions,
rapidly increasing populations evidence a greater proportion of
younger age groups. The younger groups provide a broad base from
which a large reproductive age group may eventually emerge, with
the potential of even further increasing the birth rate. Tongan
census statistics report a 1966 growth rate of 3.46 percent which
represents one of the largest yearly growth rates in Tongan
history. Since 1966, yearly percentage growth rates have decreased.
However, as the younger age groups reach reproductive ages, Tonga
may experience a resurging population expansion.

168 In order to forestall this continually increasing birth
842 rate, and to establish a more stable demographic profile, the Tongan
government has, since 1955, supported a family planning program.
[647] The medical department of the Tongan Ministry of Health began the
present program of family planning in 1958, with aid from the South
Pacific Commission. Since its initiation, the program has been
extended to all parts of the Kingdom, with varying degrees of
success.

^A[See Category 161, p. 28—Analyst.]

842 168 [164] [165] 161 [165] [163] [162] Tongan traditions are contrary to the concept of reduced family size. Prior to 1950, high infant mortality motivated production of large numbers of offspring. In addition, a large family represented security for elderly parents. However, with the introduction of public health facilities, such as water purification, infant mortality declined, but without a corresponding decline in the birth rate. Thus, family size has increased slightly. The average number of persons per household in 1956 was 6.6, while in 1966 this figure was 6.7.

168 795 842 Several of the active religions within the Tongan Kingdom are a second major obstacle to effective family planning. These church groups (Mormon, Free Church of Tonga and Catholic) are outspoken in their opposition to family planning and birth control. Estimates of lay agreement to this opposition vary. The Office of Family Planning in Tonga claims that 18 percent of the Catholic population participates in the program. However, interviews conducted in a cross sampling of the Tongan population indicated a much lower percentage of Catholic supporters. Interviews with Mormon and Free Church members indicated consistent rejection of the family planning project. Despite the fact that the majority of the Tongan population is of Methodist affiliation, the influence of smaller church groups should not be underestimated. The Mormon church mission, for example, has experienced a rapid expansion in all areas of the Kingdom. The potential for a religious-based block to governmental birth control programs is not insignificant (Clark 1974).

166 During interviews with individuals who had migrated to
871 Tongatapu, the most frequently offered explanation for this migration was the desire for the best education for the children, and a
873 subsequent qualification for careers in government service. Until
368 recently, Tonga's secondary schools were all located on Tongatapu. Even though secondary schools have now been built on the other islands, most informants believed that the Tongatapu schools are
871 superior. All such individuals expressed a willingness to temporarily lower their standard of living, undergo long periods of family separation or relocate the entire family, in order to achieve a long range goal of better education.

166 A smaller number of informants migrated to Tongatapu, due
464 to a desire for cash employment in or near the capital. However,
[871] in many cases both motives, education and employment, were influential.

166 The centripetal force of urbanization, as described by Fiefia in the 1966 census report, is noted particularly with regard to younger age groups. "The drift of young people from the atolls of Ha'apai, especially, and rural areas of Tongatapu to Nuku'alofa is probably indicative of this trend" (Fiefia 1968, p. 11).

Most of the internal migration is from rural to urban areas,
162 and Nuku'alofa is by no means the only urban area affected. The
166 1956 census listed six settlements, including the capital, with
161 populations in excess of 1,000. With the 1966 report this statistic had risen to 13. (Table 6 lists these settlements with the respective intercensal increases.) These 13 evidenced a combined

TABLE 6.--Towns With 1,000 Population and Over Showing the Percentage Increase Since 1956.

District and Town	1956 Population	1966 Population	Percentage Increase or Decrease	
Tongatapu				
Nuku'Alofa including Siesia-Patangata	9,202	15,685	+	70.04
Mu'a	2,560	3,502	+	36.8
Vaini including the Government Experimental Farm	1,064	1,741	+	63.6
Ha'ateiho including Tonga College and Lotoha'apai	1,093	1,473	+	34.6
Fua'amotu including Camp Taliai of the Tonga Defense Force	827	1,343	+	62.4
Haveluloto (Havelu)	292	1,334	+	356.8
Kolonga	866	1,311	+	34.9
Houma	833	1,259	+	51.1
Nukunuku	799	1,078	+	34.9
Ha'apai				
Pangai	1,838	1,670	-	9.1
Hihifo	965	1,005	+	4.1
Vava'u				
Neiafu	2,873	3,593	+	25.0
Leimatu'a	1,004	1,068	+	6.3
Total	24,216	35,922	+	48.3

SOURCE: S. N. Fiefia, Report of the Results of the 1966 Census (Nuku'alofa: Government Printer, 1968), p. 10.

101: Clark K-4,5 (1974) 1978 OU9 Tonga OU9

162 percentage increase of 48.3 percent of the total "urban" population
161 and represented in excess of 46 percent of the Kingdom's population.
166 Nuku'alofa alone accounted for nearly 21 percent of the
162 national population total.

[361] It is important to note that 9 of the 13 settlements
(Table 6)[A] are in the middle and eastern sections of the Tongatapu
district, the areas where economic and educational activities are
concentrated. These 9 villages represent nearly 60 percent of the
island's population, with Nuku'alofa, alone, accounting for 32.4
361 percent of the total (Fiefia 1968, p. 10). An example of extremely
166 rapid village growth is the case of Haveluloto (Havelu). This
rapid growth is the result of three factors:

1. The proximity of Havelu to Nuku'alofa attracts many people who could not find land within the capital.
2. [366] The relocation of the Tonga Copra Board and the Tonga Construction Company, from Nuku'alofa to Havelu, was accompanied by a subsequent relocation of employees.
3. [368] The construction of a new island hospital within Havelu has attracted many residents.

361 The major road between Havelu's hospital and Nuku'alofa is solidly
491 lined with dwellings.

162 The four remaining villages of over 1,000 population, not
found on Tongatapu, are divided evenly between Ha'apai and Vava'u.
162 Of these, Pangai declined in population during the intercensal
166 period, while the other three registered the lowest percentage
161 increases of the 13 settlements. This statistic indicates that
movement from rural to urban areas was not as influential within

[A] [See Category 162, p. 38—Analyst.]

161 Ha'apai or Vava'u, as in Tongatapu. This conclusion is supported
162 by the outmovement of population, both rural and urban, from these
166 islands to Tongatapu. In Ha'apai, four villages lost population, while others increased at rates lower than the national average. In Vava'u, one-third of the villages lost population, while only two increased at a rate equal to the national average (Walsh 1970, p. 36).

166 Areas of Tonga most affected by in-migration are portions of 'Eua, owing to the available land, and Tongatapu. In addition to Nuku'alofa and its environs, the east central districts of Tongatapu have been most affected. The Nuku'alofa in-migration is of particu-
166 lar interest. Prior to 1956, the majority of migration to Tongatapu
161 was directed to rural areas. Growth rate of Nuku'alofa during the
162 intercensal period of 1931 to 1956 averaged 5.2 percent, while rural Tongatapu grew at a rate of 6.3 percent. However, the trend altered during the intercensal period of 1956 to 1966. Nuku'alofa, during this period, grew at a rate of 7.4 percent, while rural Tongatapu maintained the rate of 6.3 percent. This, and the preceding statistics, demonstrate the increasing importance of Nuku'alofa and the other major villages, both in terms of population (nearly 50 percent of the nation's total) and the tendency for current migration to Tongatapu to be urban oriented (Walsh 1970, p. 38).

166 Movements to Nuku'alofa and its environs from other areas of Tongatapu were more numerous than in-migration from other islands. This suggests a two-step migratory pattern. Frequently, a migrant from the other islands will settle initially in a Tongatapu village,

166 rather than move directly into the capital. Movement from these areas into Nuku'alofa primarily involves young age groups, such as school girls attending Queen Salote College.

Two factors stimulate movement from the outer islands. Centrifugal forces push people out of Ha'apai and Vava'u, while centripetal forces pull these people to Tongatapu. The most notable examples of these forces are greater opportunities for social mobility through education, improved transportation facilities between the islands, recent hurricanes in Ha'apai and Vava'u, an outbreak of black leaf streak in Vava'u, and the urban attractions of Nuku'alofa. Each of these forces can be related to economics. Simply, the average Tongan is seeking to improve his economic status to moving himself, if not his entire family, to Tongatapu.

166 These movements to Tongatapu are complicating the already
362 serious problem of land and housing shortages on that island. As a
[591] result, migrants often live with relatives, or within the crowded
substandard dwellings near Nuku'alofa. Examples are especially
prevalent along the major roads between Nuku'alofa and Pea.

166 Interviews with individuals residing under these conditions
[591] revealed two important facts. If employment is secured and a perma-
nent home established, the individual can expect additional family
members and relatives to also migrate and move in with him, result-
[241] ing in a cyclical process. In addition, it was found that as fami-
lies leave Ha'apai and Vava'u, farmlands are not properly maintained,
due to the absence of male family members, who are usually the first
[162] to migrate. Therefore, the the Kingdom is experiencing a severe

166
162 maldistribution of resident population, with over 50 percent now
living on Tongatapu. This situation is compounded by the decreas-
241 178 ing use of arable farmland and a subsequent reduction in the produc-
tion of indigenous foodstuffs (Fox 1972, p. 5).

311 Several Tongan geographic features are influential in the
[133] distribution of the Tongan population. The western chain of islands
in the Tongan group are volcanic and therefore have been settled
only intermittently. These islands, usually smaller in size, are
less densely settled than the eastern coral islands. Factors, such
as the lack of permanent fresh water, and land too steep for anything
beyond scattered cultivation, severely limit their settlement poten-
[133] tial. In addition, occasional volcanic eruptions further deter
settlement. During the civil war period of Tongan history, most of
the western chain islands supported sizable populations. However,
only Niuafo'ou and Niuatoputapu continued to support communities
311 into the twentieth century (Walsh 1970, p. 30). A volcanic eruption
166 on Niuafo'ou in 1946 forced its evacuation and most of the village
[133] population from this island resettled on 'Eua. (Niuafo'ou was
resettled in 1958.) Recent attempts to settle Kao and Tofua in
Ha'apai have met with varied success. Only Tofua appears, at
present, able to sustain a reasonable population. However, plans
and proposals are occasionally presented for the permanent settle-
ment of Late and Koa, also in Ha'apai.

161 The concentration of Tongan population within towns and
162 villages is expected to continue to be a significant feature of
166 Tongan population distribution. Similarly, a growth in the number

161 of village communities with populations in excess of 1,000 is
166
162 anticipated, particularly on Tongatapu and 'Eua. The attraction of
'Eua appears to be the availability of land, which motivates the
161 migration of Tongatapu's landless males. Table 7, which includes
162 the distribution of population from the 1921 census, illustrates
the population growth on 'Eua, from 1.4 percent of the total population in 1939 to 4.3 percent in 1966.

311 Another significant factor determining population distribution is proximity to food source. In most cases, this results in
[161] location either near the sea or near cultivated land. Maude, in
his examination of Tongan areas of low and high density, has

161
162 TABLE 7.--Population Distribution.

District	Population 1921	Population 1939	Population 1956	Population 1966
Tongatapu	10,127	15,754	31,264	47,920
Ha'apai	5,976	7,483	9,918	10,591
Vava'u	5,787	8,199	12,477	13,533
Niuatoputapu	791	836	1,254	1,395
Niuafo'ou	1,108	1,378	---	599
'Eua	---[1]	480	1,925	3,391
Total	23,759	34,130	56,838	77,429

[1] Included in the Tongatapu figures.

SOURCE: S. N. Fiefia, Report of the Results of the 1966 Census (Nuku'alofa: Government Printer, 1968), p. 9.

101: Clark K-4,5 (1974) 1978 OU9 Tonga OU9

161
162
311

TABLE 8.--Population Density of Each Principal District: 1956 and 1966.

District	1956	1966
Tongatapu	313	480
Ha'apai	490	523
Vava'u	281	304
Niuatoputapu and Tafahi	172	191
'Eua	57	100

SOURCE: S. N. Fiefia, Report of the Results of the 1966 Census (Nuku'alofa: Government Printer, 1968), p. 9.

311 the former category. As mentioned previously, the lack of suitable water sources, coupled with the steep and rocky landscape, pose an effective deterrent to agricultural settlement.

Several important examples of uninhabited coral formations [134] are located within the eastern island chain. Walsh described Uoleva as having never been inhabited and explained that the soil of the island is unsuitable for yam cultivation and "although visited and farmed to some extent, there is no record of permanent settlement" (Walsh 1970, p. 30). Interviews within Ha'apai settlements supported this conclusion in relation to several smaller uninhabited islands of this same island group.

The uninhabited areas of Vava'u are usually small islands which are steep and provide little acreage for productive farming. Also, in Vava'u, which has not experienced significant overcrowding, there has been little need for additional land. Many farmers

311 accessible and abundant sea resource. This is true of western
161 Tongatapu and the western sides of the Ha'apai islands, with the
reefs of inner Ha'apai being the most productive.

369 Urban areas are by definition high density zones, and
therefore need not be defended as such. However, urban density
369 can be examined in relation to size of housing units within the
162 islands. The average size of the Tongan household, as reported in
592 1966, included 6.7 persons. Recently collected data indicated no significant change in this level. However, the census reported nine villages with households averaging eight persons, and four villages which averaged over nine persons per household. Most of these were located on Tongatapu. Similarly, recent study indicated the average household size in Nuku'alofa to be 7.96; Pangai, 7.55; and Neiafu, 7.42. In addition, more than 63 percent of those households containing three or more nuclear family units were located on Tongatapu.

161 High density rural areas may number more than 2,000 persons per square mile, as in some parts of Ha'apai, while urban densities may be much higher. The average density of the population on inhabited islands, in 1966, was approximately 375 persons per square mile. This represented an increase in overall density per square mile of nearly 100 persons, from 1956 to 1966. However, these statistics are of little significance, unless considered in relation to the Kingdom's available human, natural, and agricultural resources.
128 The following sections, which treat land tenure and agricultural exchange, will rely heavily upon an analysis of these resources, and their critical interrelations within Tonga.

101: Clark K-4,5 (1974) 1978 OU9 Tonga OU9

423 neither allotment size has been popular to the point of significantly altering population distribution. While several estates were initially surveyed into 15 acre allotments, most have since been resurveyed to the stand eight and one-quarter acre size (Wood 1932, p. 74).

131 The estimated total land area of the Tongan Kingdom is 184,674 acres, or approximately 288 square miles (Report of the Ministry of Lands and Survey, 1973, p. 14). Approximately 40 percent of this total represents the Tongatapu island group. Vava'u and Ha'apai represent 22 percent and 18 percent, respectively, with the remaining 20 percent being volcanic and largely
161 uninhabitable. Population estimates of 101,608 for 1975, projected in the 1970 economic survey, allow 1.8 acres per person or an overall density of 352 persons per square mile (An Economic Survey
161 of Tonga: 1970, p. 10). However, a breakdown of Tongan districts
● 162 illustrates the maldistribution of population and land resources. Tongatapu, with over 60 percent of the total population, currently has a ratio of approximately 1 to 1.02 acres per person, and an estimated 1975 population density of 628.8 persons per square mile. Ha'apai, not including Tofua and Koa, shows 0.94 acres per person and a density of 685.6 persons per square mile. 'Eua, on the opposite extreme, contains 4.3 percent of the population, or approximately 4,370 persons. 'Eua is an estimated 33 square miles in size, resulting in a population density of approximately 129 persons per square mile, or 5.0 acres per person (see Table 9).

161 TABLE 9.--Population Density, and Acres Per Capita.
162

	Population 1975 est.	Area Sq. Mi.	Density Per Sq. Mi.	Acres Per Capita
Tongatapu	62,794	99.85	628.8	1.02
Ha'apai	13,890	20.26	685.6	0.94
Vava'u	17,679	44.44	397.8	1.61
'Eua	4,370	33.76	129.44	4.97

SOURCES: *Kingdom of Tonga: Statistical Abstract 1972* (Nuku'alofa: Government Printer, 1972), p. 2.

S. N. Fiefia, *Report of the Results of the 1966 Census* (Nuku'alofa: Government Printer, 1968), p. 8.

An Economic Survey of Tonga: 1970 (Nuku'alofa: Government Printer, 1970), p. 8.

423 As indicated by these statistics, land is often at a premium
within Tonga. While the laws provide for an equitable system of land
distribution, differences between actual practice and theory in land
distribution, in view of population pressure, must be recognized.
Of 265 sample household interviews within the Kingdom, 51 percent of
423 the respondents reported to be landless. These individuals indi-
425 cated that the willingness of the estate holder to lease land, as
well as Tongan tradition, is frequently a more decisive factor than
the 1927 Land Act, with regard to land distribution. Many inter-
viewees suggested that land is rarely acquired in the manner stated
by law, but rather through a complex, and apparently corrupt, system
423 of barter and favor buying. This accounts for the fact that a
large number of Tongans are landless, while as much as 50 percent
of available acreage remains intact within royal and noble estates.

CHAPTER V

AGRICULTURAL PATTERNS

The Traditional System

241 Economically, Tonga is supported primarily by agriculture.
433 Production of primary agricultural products accounts for approxi-
[464] mately 65 percent of the nation's employment and the majority of
[439] all export earnings (96 percent in 1969). In addition to subsis-
[245] tence cropping, bananas and coconut are most frequently raised as
245 cash crops. Copra is currently Tonga's major agricultural export,
439 seconded by bananas. While the export value of bananas was greater
than copra in 1967 and 1968, the occurrence of diseases, which
affect the banana plant, permitted copra to regain its dominance.
245 Copra is expected to remain the major agricultural cash crop in Tonga,
during the near future.

241 Most Tongan men earn their livelihood as farmers, having
434 three basic production activities. Production of subsistence crops
for family consumption is the major concern of the majority of these
men. Additional production activity concerns crops for local sale
and crops for exportation to international markets.

463 Table 13 presents the major labor divisions within the Tongan
162 Kingdom. While only 66.5 percent of the male population is engaged
[241] in agricultural employment, recent surveys indicated that a majority
of the remaining work force are also part-time farmers, producing

463 TABLE 13.--Economically Active Males Over Age 15 Classified According to Industry in Which Engaged: 1966.
162

Industry	Total Number	Percent
Agriculture	13,827	66.58
Commerce	180	.86
Transportation and Communication	334	1.60
Services	1,715	8.25
Manufacturing and Processing	579	2.78
Government and Administration	124	.59
Domestic	33	.15
Unclassified	3,974	19.19
Total	20,766	100.00

SOURCE: S. N. Fiefia, Report of the Results of the 1966 Census (Nuku'alofa: Government Printer, 1968), p. 72.

463 food crops for home consumption, plus some meat, such as pork and
241 goat. As outlined in the previous chapter, virtually all Tongans
[162] are tied to the land and only rarely is a household encountered where the production of at least garden crops does not exist. However, the use of imported food commodities is increasing, particularly in the urban areas. This will be discussed in greather depth within the following chapters.

241 Agriculture is usually the work of men, although it was fre-
592 quently observed that an entire family may travel to its rural 'api
462 and spend several days working together. Men usually do the heavier labor, such as clearing and preparing the land for planting. While

CHAPTER VI

AGRICULTURE TO URBANIZATION

369 Urbanization and its effects are issues confronting all
171 the governments in the Pacific islands. Of the principal Polynesian
cities, only Pago-Pago in Eastern Samoa evidenced a decrease in
urban population between the mid-1960s to 1975, a result of migrations
to Honolulu and San Francisco. The remaining cities of the
region are coping with the increasing numbers of individuals
121 migrating from villages and rural areas. Thus, urbanization, as
defined by the South Pacific Commission and applied to Tonga (see
pages 21-22) must be examined in relation to those factors motivating
population movement from rural to urban centers. A
fallacious assumption examines urban growth as a product of the
city when, in fact, "it must be viewed as stemming from forces
369 working on the whole of society" (Harr'e 1973, p. 11). Urbanization
in Tonga results from both urban and agricultural societal
forces. Although three urban centers in Tonga are recognized,
Nuku'alofa exemplifies the process of urbanization in Tonga and
will be used as a model in the following discussion.

369 The steady and accelerating growth of Nuku'alofa, particularly
● 162 notable in the past 40 years, has been generally an uninterrupted
161 process. In 1937, the capital contained 4,000 inhabitants.

369 By 1956, this figure had increased to 9,200, and by 1966, to nearly
162 16,000 not including surrounding areas. Today, Nuku'alofa,
161 including the adjoining settlements, contains between 25 and 30
369 thousand persons. This number represents approximately half of the
162 population of Tongatapu and a quarter of the nation's total
population.

369 Nuku'alofa is not unique in these respects as many of the
171 same features of growth are common throughout Polynesia. However,
[166] unlike other Pacific cities, Nuku'alofa is almost totally unprepared
to absorb the continuing flow of 600-1,000 new inhabitants per year.
369 The city lacks strong local government and laws, contains inadequate
[364] water and drainage facilities, refuse collection, and sewage systems,
[464] all necessary for coping with a sizable population. In addition,
there are few opportunities for steady urban employment and,
therefore, many persons are underemployed semi-subsistence agricultural
workers dependent upon the production of others.

369 In these respects, one could justifiably argue that
361 Nuku'alofa is not an urban settlement, in the true sense, but
merely an agglomeration of three agricultural villages (Kolomofo'ou,
[368] Ma'ufanga and Kolomotu'a). The merging of these three villages
into one urban area resulted from the establishment of the royal
seat of power and the Wesleyan church headquarters at this location,
plus the fact that Nuku'alofa was Tonga's first international
369 port. The urban center of Nuku'alofa remains highly agricultural
[368] in nature. The city has acquired few new facilities other than
[166] those usually associated with administration and trade. Three

APPENDIX A

GEOGRAPHICAL SURVEY OF TONGA

131 The islands comprising the Kingdom of Tonga are scattered
through 8°30' of latitude, from 15° South to 23°30' South, and
4° of longitude, from 173° West to 177° West. Directionally, the
Kingdom is located East of Fiji and South of Samoa (Harris 1966,
p. 124). The total area encompassed by the Kingdom is over 20,000
[361] square miles. However, of this area only 288 square miles are land
and this amount is scattered over 150 islets of which only 45 are
[162] inhabited (Kennedy 1968, p. 22). The largest and most populated
island of the Kingdom is Tongatapu which accounts for 99 square
161 miles and holds a population in excess of 50,000. Estimates of
Tonga's total population vary from 80,000 to 100,000. However,
sources within the nation give the total as of January 1, 1975,
as 95,000 (Report of the Ministry of Health 1973, p. 26).

133 The islands of Tonga lie in two fairly parallel lines and are actually the tops of two undersea mountain ridges. The basic orientation is Northeast to Southwest with several notable outliers in the Northwest of the Kingdom's territorial limits. These outliers include the islands of Niuatoputapu and Niuafo'ou (Kennedy 1968, p. 22).

Physically, the geography of the islands is not uniform. There are three divisions of islands by geologic type (Figure 3).

[TEXT CONTINUED ON PAGE 165]

423 register for their land allotment called an "'api." However, with
641 the upsurge in populaton, there simply is not enough land to go
[162] around. The King of Tonga, in a report to the nation's Legislative
Assembly (October, 1967) told of "39,837 males in the Kingdom who are, or will be, entitled to tax allotments, there are currently only 13,017 allotments to distribute to them" ("There's Not Enough Land . . ." 1967, p. 37).

137 These islands are remarkable for their fertility and the variety
134 of their vegetable productions, abounding in fruits indigenous to
tropical climates, such as the cocoa nut, bread fruit, banana, pine
137 apple, orange, citron, lime, custard apple, and others. Yams, melons,
and pumpkins are also very plentiful, and of excellent quality.

161 The population of all the groups is estimated by the missiona-
ries at about 50,000; that of the Island of Tongatabu is said to
162 be about 9000, of which 5000 are Protestants, 600 Roman Catho-
795 lics, the rest remain in their old faith.

643 The government of the islands is despotic, and not hereditary,
but elective in the royal family. The eldest son of the king does
[642] not necessarily succeed his father, but another may be chosen from
the sons of a former king, or a younger son may be elected before
an elder if he be thought to have more capacity for government.

644 There are some individuals connected with the priesthood, who
554 are considered superior in rank to the kings, and to whom the kings
[643] do homage. The Tamahá is one of these, and is considered to be
descended from the gods. The present Tamahá is a very old
woman, quite blind, who remembers the visits of Captain Cook,
and, although a Christian for many years, she still retains her rank
as the first person in the Tonga Islands.

643 George, the present King of the Friendly Islands, has only been
ruler over the whole of the three groups, composing them, since the
[634] year 1845. Before this he was King of the Haabai group only,
Josiah Tubou being King of Tonga, and Feenau King of Vavau.
When Feenau died, George became King of Vavau as well as
of Haabai, and Josiah, King of Tonga, dying in 1844, George
became Tui Kanokubolu, and now reigns over the whole of the
Friendly Islands. He has professed Christianity for about twenty-one years.

122 The Meander, Captain Keppel, sailed from the Bay of Islands,
New Zealand, on the 10th of June, 1850.

At daylight in the morning of the 19th we made "Eua," an island situated on the eastern side of Tongatabu; and soon afterwards the tops of the cocoa-nut trees upon Tonga itself were seen along the horizon to the westward.

At 8·30 A.M. we fired two guns, and kept away N.W. by W., steering for an opening between Tongatabu and a small islet called in the chart Eua-Eki.

123 Upon nearing the eastern side of Tongatabu, very heavy rollers
were seen along the shore of the island, the surf upon the reefs being
thrown up to a great height, the scrub being all beaten down, and
the cocoa-nut trees appearing further inland than in other places.
Seeing no canoes or natives, we fired a third gun, and shortened
sail to topsails, sending up the colours and the signal for a pilot.
Soon afterwards a canoe was observed coming off, and the ship